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CONTENTS

Carcinoma of the Stomach: Observations on Surgical Treatment. Henry K. Ransom, M.D., and Frederick A. Collier, M.D.....	87	Editorial:	
The Needs of Mentally Handicapped Children in Michigan. Robert H. Haskell, M.D.....	93	The State Dues.....	136
Supplementary Report of Cancer Committee. C. E. Dutchess, M.D.	98	The Wayne County Medical Society.....	137
✓ Tuberculosis in Children and Adolescents. Henry D. Chadwick, M.D.....	109	Taxation	137
A New Method of Studying Edema. F. H. Lashmet, M.D.	114	The Cancer Committee.....	138
Allergic Diseases in Children. Samuel J. Levin, M.D.....	116	The Trend of Populations.....	138
Actinomycosis of the Liver. George G. Rieckhoff, M.D....	120	A Bit of Ancient Medical History.....	139
Hyperparathyroidism. Nathaniel Gates, M.D.....	121	Medical Economics: The Fallacy of Granting Life Diplomas. J. A. Cameron, M.D.....	143
Famous Men in Medical History: Austin Flint. Francis J. Heringhaus	126	Communications	144
Michigan's Department of Health. C. C. Slemons, M.D., Dr.P.H.	133	General News and Announcements.....	144
		Obituary	145
		Society Activity.....	146
		Minutes of the Mid-Winter Session of the Council of the Michigan State Medical Society.....	152
		County Societies.....	165
		Woman's Auxiliary.....	170
		The Doctor's Library.....	172

CARCINOMA OF THE STOMACH: OBSERVATIONS ON SURGICAL TREATMENT*

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Cancer of the stomach comprises at least one-third of all cancer and, in spite of all our therapeutic efforts, remains the chief single cause of mortality from cancer. Its diagnosis and treatment have shown less advance than that of cancer in nearly every other organ in the body. It has come to be regarded by both physicians and the laity as a nearly hopeless lesion, a feeling that is not without some foundation.

At the present time, operation offers the only hope of cure and the greatest chance of palliation and it is this phase that we wish particularly to discuss.

In the hope of bettering our own results in the treatment of this disease, a study was undertaken of the cases of carcinoma of the stomach that have come under our observation in the University Hospital, during the five year period from 1926 to 1930. During this time our records show 469 patients

were diagnosed as having this disease but because of insufficient data or incomplete study many were excluded, leaving 415 cases that were proven by autopsy, operation or sound clinical evidence to have this lesion. The clinical evidence accepted as positive was a characteristic appearance on roentgen examination, a tumor in the epigastrium with the associated common clinical findings of hematemesis, blood in the stools and achlorhydria. The age and sex incidence are shown in Table I. The great pre-

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ponderance of men over women as compared with other statistical studies cannot be explained. The ratio of men to women in our clinic has changed definitely during the past ten years with a constant increase in the relative number of males. In such a small series it cannot be considered to be of any significance. The age incidence is usual, showing that the largest number fall into the cancer age from forty to seventy, but since 10 per cent fall below this age group, it must be considered as a distinct possibility after the age of twenty.

TABLE I
SEX INCIDENCE

	Per cent
Male	84.5
Female	15.5
AGE INCIDENCE	
21-30	1.8
31-40	8.2
41-50	22.3
51-60	29.1
61-70	27.7
71-80	10.0
81-90 .....	.9
	100.0
Youngest patient.....	21 years old
Oldest patient.....	82 years old
Average age	56.1 years

The usual textbook picture of a patient with carcinoma of the stomach is that of a patient who will live at the most a few weeks and is a matter that has ceased to be of vital interest to either physician or patient. The initial symptoms complained of by the patients are shown in Table II, and are chiefly remarkable because of their number and variability.

TABLE II
INITIAL SYMPTOMS

	Per cent
Epigastric pain.....	25.9
Anorexia	10.5
Pain and gas.....	10.0
Pain and weakness.....	10.0
Weakness	10.0
Pain and vomiting.....	9.5
Nausea and vomiting.....	4.5
"Stomach trouble".....	3.6
Dyspepsia	3.2
Gas	2.7
Abdominal distention and dyspnea.....	2.3
Nausea and dizziness.....	1.4
Vomiting of blood.....	1.4
Dysphagia	1.4
Pain and tumor.....	0.9
Pain and diarrhea.....	0.9
Loss of weight.....	0.9
Vomiting and weakness.....	0.5
Fainting and pain.....	0.4
	100.0

To be sure, the majority of patients have as a first symptom some discomfort in the

epigastrium or a minor change in digestion, usually, however, of so slight a nature as to be ignored and not without reason when one knows of the common prevalence of such symptoms, due most often to lesions other than cancer. To make the early diagnostic difficulty worse, we note that nearly 30 per cent of the patients have general symptoms such as weakness, loss of appetite, anemia, gas or distention that are not suggestive to the patient of any lesion of the stomach. One may say that the characteristic of the symptoms of carcinoma of the stomach is that they are not characteristic.

TABLE III

ANALYSIS OF SIGNS AND SYMPTOMS		Per cent
Epigastric pain		
Present		80.5
Absent		19.5
Vomiting		
Present		66.7
Absent		33.3
Weight loss		
Present		95.9
Absent		4.1
Abdominal tumor		
Present		59.5
Absent		40.5
Vomiting blood		
Present		20.0
Absent		80.0
Tarry stools		
Present		32.7
Absent		67.3

Table III represents a tabulation of the signs and symptoms commonly ascribed to gastric cancer. Here again we note the vague complaint of loss of weight as a symptom common to the greatest number of cases, with epigastric pain coming second, and vomiting third. Vomiting of blood and tarry stools occurred in the minority of cases and would not seem to be symptoms of great diagnostic import. It is an interesting observation to find a palpable mass present in so many as 59 per cent of the cases. This merely emphasizes the observation that in most cases the disease is well advanced when the patient first applies for surgical aid.

DIAGNOSIS

As mentioned above, to wait for the textbook picture to appear before making the diagnosis is to wait until the stage of curability has long since been passed. In order to better our surgical results, all mild symptoms referable to the gastrointestinal tract, particularly where there has been any change in previous digestive habit, especially in middle aged and elderly persons, must be

regarded with suspicion and an active effort made to exclude malignancy as the cause. Particularly in those patients who have had digestive disturbances over a period of years, should any slight change in the character of the symptoms be looked upon with alarm. Such a patient may be known to have had a peptic ulcer, cholecystitis or gastric neurosis, which facts may easily blind us to the recognition of cancer symptoms.

Of the diagnostic methods available at present, none in our opinion is comparable to X-ray fluoroscopy and the film examination. Hence in all fairness to the patient, these cancer suspects should be given a thorough roentgenological examination which should then be repeated at frequent intervals if still indeterminate. Here also we must consider the problem of the treatment of gastric ulcer, more especially the smaller ulcers. It is these ulcers which are the most puzzling to the roentgenologist and they form a group in which it is oftentimes actually impossible to differentiate between malignancy and benignity. It is at once apparent the injustice which will be done such a patient, possibly harboring cancer, to permit him to continue for an indefinite time on a medical regime. We are in accord with the principles adopted in the Lahey Clinic in the management of such cases, *i.e.*, a trial of three weeks on dietetic treatment under careful hospital regulation. If, at the end of that time, checkup X-ray examination does not show definite evidence of morphological change, such as a more shallow crater or narrower diameter of the defect, the diagnosis of cancer must be assumed and surgery resorted to.

ULCER AND CANCER

In the University Hospital several years ago the question of the frequency of cancer developing upon gastric ulcer was studied from the clinical standpoint by Cabot and Adie. Of fifty-six cases seen in the clinic from 1916 to 1925 and in which the whole specimen was available for pathological examination, five were found to show clear evidence of having developed on a chronic ulcer, giving a percentage of 8.9.

A small amount of additional evidence on this point may be obtained from our present study by analyzing the pathological reports from the specimens removed in the series of resections. According to the criteria used

by Drs. Warthin and Weller, which are the same as in the cases quoted above, in our fifty-six resection cases, six showed evidence of having developed upon a pre-existing ulcer. This gives a percentage of 10.7, a figure slightly higher than those given by Cabot and Adie. Whether this figure would be increased or decreased had we pathological examinations on all of the ninety-four operable cases, cannot be told. At any rate, the number of cases seems too small from which to draw any very valid conclusions.

It should be pointed out that these figures represent the proportion of cases of cancer which developed upon a pre-existing ulcer and the same figures should not be taken to apply to the proportion of all gastric ulcer cases which ultimately develop cancer.

X-RAY ACCURACY

Of the 94 cases subjected to gastric resection or gastroenterostomy, which will later be discussed in detail, an attempt was made to correlate the X-ray diagnoses made before operation with the operative findings. In forty-seven, or exactly 50 per cent, the roentgenologist gave a very accurate report of the size and location of the lesion and made a positive diagnosis of cancer. In fifteen, the diagnosis of gastric neoplasm was made and in three the films showed a rather characteristic filling defect. Therefore in sixty-five cases, or 70 per cent, the X-ray findings, regardless of all other evidence, gave the diagnosis. To this must be added the two cases reported as having "a non-malignant lesion" and one with "an obstructing surgical lesion" and three in which roentgenological examination showed very high grade pyloric obstruction with much gastric retention, thereby making a complete examination impossible. Thus seventy-one cases or 76 per cent had X-ray findings either so positive or so highly suspicious as to warrant operation. Of the remaining cases, a diagnosis of ulcer was made as follows: "Gastric ulcer with subacute perforation," three; "gastric ulcer," six; "duodenal ulcer," 5. In these cases the decision for operation was made from clinical evidence plus the X-ray. In five cases no X-ray examination was made. For the most part these were patients who had almost complete pyloric obstruction such as to make early operation imperative regardless of the

causative factor. In one case the examination was unsatisfactory while in the remaining three the diagnosis was indeterminate. Hence, in only 3.1 per cent of the cases did the X-ray fail to give at least a clue to the correct diagnosis.

TREATMENT

Table IV shows the fate of the 415 patients positively diagnosed as having cancer of the stomach. It will be noted that 223, or 54 per cent, were obviously far advanced when seen and for whom no operation, even palliative in character, could be expected to succeed. The thirty-five who refused operation or who went elsewhere for surgical treatment were in our judgment operable but for the present study must be dismissed from further consideration due to lack of adequate information. The forty-nine patients subjected to exploration only were regarded as borderline cases in which the bare hope of palliation by operation was held. This group, comprising 11.6 per cent of the entire number of cases, must be added to the 54 per cent just mentioned, thus actually raising the total number of hopeless cases to 65.6 per cent.

TABLE IV

	Number	Per cent
Total number of patients with gastric cancer	415	100.0
Refused operation or operated on elsewhere	35	8.4
Exploration only	49	11.6
Gastroenterostomy	38	9.2
Gastric resection	56	13.5
Gastrostomy	10	2.4
Jejunostomy	4	0.9
Operable	192	46.0
Inoperable	223	54.0

The small group of gastrostomies and jejunostomies, amounting to only about 3 per cent, is of no great interest. These were all done in desperate cases and a few weeks of amelioration was all that could be hoped for.

The remaining 22.7 per cent of the 415 cases, *i.e.*, those on whom gastric resection or gastroenterostomy was done, have been subjected to a more searching study. It is obviously in this group that patients showing important relief from palliative operations, or perchance any "cures," will be found. Table V shows the number of postoperative deaths in this group—a total of eighteen patients, or 19.2 per cent. All patients dying before discharge from the hos-

pital were included in these statistics and in explanation of this rather high mortality rate might be mentioned one case who died of coronary thrombosis over two weeks postoperative on the evening before the day set for discharge. Another was a case of acute perforation of a gastric carcinoma with peritonitis who was practically moribund at the time of operation. Two others remained in the hospital for a period of several weeks, suffering from numerous difficulties, none of which could clearly be attributed to the operation. On the whole, the greatest factor contributing to the mortality rate was pneumonia, a fact which can readily be appreciated when one remembers that we are dealing with a group of debilitated, anemic, and usually aged patients, many of whom are suffering from subacute pyloric obstruction with severe dehydration. At the present time we are unable to state whether there is any one anesthetic which is particularly free from objection in this regard, inasmuch as our percentage of pulmonary complications has not seemed to be importantly less with spinal than with the various forms of inhalation anesthesia.

TABLE V

	Number	Per cent
Gastroenterostomies	38	40.4
Gastric resections	56	59.6
	94	100.0
Postoperative deaths		
Gastroenterostomies	5	13.3
Resections	13	23.2
Total	18	19.2

TABLE VI

	Number	Per cent
Patients accounted for	67	71.3
Gastroenterostomies	27	28.7
Resections	40	42.6
Patients not heard from	27	28.7
Gastroenterostomies	11	11.7
Resections	16	17.0

TABLE VII

ANALYSIS OF OPERATIVE RESULTS— GASTROENTEROSTOMIES

	Number Cases	Per cent
Lived		
6 months or less	9	40.9
7-12 months inclusive	9	40.9
13-18 months inclusive	2	9.1
19-24 months inclusive	2	9.1
Patients still living	0	0.
	22	100.0

Average length of life—8.6 months

Concerning those seventy-six patients who were discharged from the hospital alive, a questionnaire was sent out. In-

formation was thus gained as to the present condition of the patient, if still living, or if dead, the date as well as the circumstances of death. From Table VI, it will be seen that data was secured regarding forty-nine patients—twenty-two gastroenterostomies and twenty-seven resections. As might have been expected, all of the gastroenterostomies were dead. Table VII shows the length of life in a statistical way. The longest period after discharge in this group was 22 months, while the shortest was two weeks, with an average period of survival of 8.6 months.

TABLE VIII
ANALYSIS OF OPERATIVE RESULTS—
GASTRIC RESECTIONS

Lived	Number Cases	Per cent
6 months or less.....	3	11.1
7-12 months inclusive.....	3	11.1
13-18 months inclusive.....	5	18.5
19-24 months inclusive.....	2	7.4
25-30 months inclusive.....	1	3.7
Still living	13	48.2
	27	100.0

Average length of life postoperative of patients dead—13.7 months.

Turning now to Table VIII, we find a similar survey of the patients who had resections. Of this group, thirteen were found to be still living and further mention will be made of them later. Of the patients dead, the longest interval that elapsed after discharge was in the case of one patient who lived 30 months. The shortest postoperative period was three months. The average length of life for the fourteen patients reported as dead was 13.7 months.

TABLE IX
ANALYSIS OF PATIENTS STILL LIVING

No. 1—living at the end of 8 months
No. 2—living at the end of 10 months
No. 3—living at the end of 1 year
No. 4—living at the end of 1 year 1 month
No. 5—living at the end of 1 year 1 month
No. 6—living at the end of 1 year 4 months
No. 7—living at the end of 1 year 7 months
No. 8—living at the end of 1 year 8 months
No. 9—living at the end of 1 year 9 months
No. 10—living at the end of 2 years 3 months
No. 11—living at the end of 2 years 9 months
No. 12—living at the end of 4 years 6 months
No. 13—living at the end of 4 years 7 months

Table IX tabulates the analysis of the patients still living. The last patient mentioned (No. 13), *i.e.*, the one having lived four years and seven months, had what was frankly thought to be a palliative resection. Cancer in the lesser omentum was left be-

hind in the opinion of the operator. Pathological examination of the tissue revealed a far advanced adenocarcinoma. This patient has been seen periodically. His health at the present time is very good and as far as we are aware there is no evidence of a return of his trouble. Patient No. 12 in the chart has now gone four years and six months since operation. This was a case diagnosed clinically as gastric ulcer with roentgenological findings indicating a large gastric ulcer on the lesser curvature which has undergone subacute perforation. Pathologically it was found that a well defined carcinoma was grafted upon a chronic ulcer. This was dealt with by a Polya resection. In response to our questionnaire, this patient presented himself at the clinic for re-examination. He reports excellent health at the present time. He has gained some 20 pounds in weight since operation and is entirely symptom-free. The checkup examination reveals no evidence of a return of his cancer. Since he is nearing the five-year period, this case in all probability is the only one in which we can with any justification presume a cure. However, in a series running over such a short interval of time, any discussion of cures seems entirely out of place.

TABLE X
OPERATIONS BY YEAR

	1926	1927	1928	1929	1930	Total
Gastroenterostomies.....	11	11	4	7	5	38
Gastric resections.....	9	10	11	10	16	56

MORTALITY

Gastroenterostomies.....	1	2	0	1	1	5
Gastric resections.....	2	5	4	2	0	13

Table X represents the distribution of the two types of operation under consideration by year. Likewise there is appended a tabulation of the mortality of each operation for the same period. This table shows the trend of our treatment during these few years. Resection has steadily gained in favor while gastroenterostomy has been done less frequently year by year. For this view, it is our opinion that there is ample justification. In addition to the figures just presented we have found that our patients with resections have on the whole experienced a smoother postoperative convalescence than with a simple gastroenterostomy, and, taken year by year, there has been a steadily decreasing postoperative mortality.

The factors which have influenced this decreased mortality have undoubtedly been

several in number. First there is a greater operative experience and consequent speed which has aided in perfecting the technical performance. None the less in importance has been the more intelligent pre- and post-operative treatment. As with thyroid and prostate cases, it is now realized that an adequate period of preparation is just as essential for a satisfactory end-result as is the operation itself. Anemia is combated by transfusion, dehydration by infusion or intravenous administration of fluids, and the deranged blood chemistry corrected by the use of chlorides and glucose. Where pyloric obstruction is marked and there has been much vomiting in consequence, important aid is obtained by repeated gastric lavage. This serves to remove from the stomach the stagnating collection of food and fluids which is being prevented from exit. A flabby dilated stomach is thus given a chance to contract down and its wall to regain its tonus.

On theoretical grounds it seems much more logical to adopt an operation which removes the ulcerated bleeding lesion rather than to be content with a mere sidetracking operation. It would seem, and we believe we have demonstrated to our own satisfaction, that the cachexia and anemia can be more satisfactorily combated with this type of operation. It has been pointed out by Dr. W. J. Mayo as well as other observers that in dealing with cancer, if the primary focus can be removed, the body shows a much greater ability to cope with secondary deposits, and some of our cases who have gone over a period of several years when the operation was known to have effected only an incomplete removal, would tend to bear this out.

The objection may be raised that the twenty-two gastroenterostomies and the twenty-seven resections which have been successfully followed up do not represent similar groups of cases, *i.e.*, that resection was done only in the more favorable cases while the more advanced ones necessarily fell into the gastroenterostomy group. To a certain degree this is true. However, in examining the charts of these patients one is

impressed by the rather marked difference of opinions expressed in the operative notes by the different surgeons by whom the operations were performed. A lesion which would be considered resectable by one, by another would be regarded as a case in which too great danger was involved if subjected to such a radical procedure. Thus allowing for differences in surgical judgment, the two series are more nearly comparable than would seem at first thought.

CONCLUSIONS

1. Over 50 per cent of the cases of carcinoma of the stomach were inoperable when first seen.

2. An additional 11 per cent were found inoperable by surgical exploration.

3. While the early diagnosis of gastric cancer is difficult, thorough X-ray examination at the present time offers the greatest possibility of accuracy.

4. Gastric resection as a palliative operation for cancer of the stomach is regarded as superior to gastroenterostomy for

(a) The postoperative period of survival is longer (13.7 months vs. 8.6 months).

(b) At the present time the mortality is no higher and the postoperative convalescence smoother.

(c) In our followup series the only patients still living were the ones on whom resections were done.

(d) Thirteen of the fifty-six resection patients are still living, two of them approaching the five-year period.

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THE NEEDS OF MENTALLY HANDICAPPED CHILDREN IN MICHIGAN*

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Who is a mentally handicapped child in Michigan?

To limit the concept of the mentally handicapped child, so far as this presentation is concerned, to the narrower field of the mentally deficient child and consider only the group of the feeble-minded and the intellectually subnormal would simplify the presentation very materially. If, however, the purpose of this Governor's Conference on Child Health and Protection is to bring out into the open the forces that threaten the welfare of all growing children in Michigan to the end that all known forces to protect the child may be offered a larger number of these children in need, such a delimitation would tend to defeat the purpose of the Conference. We cannot limit this presentation to the group of the mentally deficient child alone. We cannot even include with them merely today's psychotic child and today's epileptic child and consider that we have guaranteed all Michigan's children full enjoyment of their rights in this field. It is trite to mention that the child of today is the adult of tomorrow but certainly the child today that becomes tomorrow a psychotic adult in a state mental hospital must be considered here.

It were delightful if one could assume that the only ones mentally handicapped, child or grown-up, were those who suffered from some frank mental or "nervous" disease. If, however, we are to accept that the highest degree of mental health is "that which permits an individual to realize the greatest success which his capabilities will permit, with a maximum of satisfaction to himself and the social order and a minimum of friction and tension," how differently must we cast our concept of the mentally handicapped child!

Michigan has in its five older state hospitals for the insane 8,541 patients; 840 patients in the new Ypsilanti State Hospital opened only last July; 2,330 patients in the Eloise, Wayne County Hospital; a total of 11,711 patients suffering from mental diseases in hospitals: with a waiting list of 611 patients. Michigan has at its Farm Colony for Epileptics 828 residents with 214 on the waiting list. Michigan has 3,450 feeble-minded at the Michigan Home and

Training School at Lapeer with 948 boys and 273 girls already on its waiting list. At the Wayne County Training School there are an additional 700 mentally defective children.

For too many of these individuals the situation is that of water already over the dam. The volume of the flood that is approaching the dam has only recently been considered. Only within recent years have real factual studies begun to challenge and deny much of what has been described as the romance of the mentally and intellectually handicapped and look to a new statement of challenges. Dr. Pollock, statistician of the New York State Mental Hygiene Commission, has set up for his state expectancy tables, akin to the life expectancy tables of the insurance field, from which to calculate mental morbidity or mortality, should we say too frequently from the point of view of social or personal future effectiveness. Four and one-half persons out of every one hundred born is the projected rate in New York State at which we must expect mentally sick patients to require prolonged residential treatment in public hospitals for the insane. This expectancy table shows that, of all children living today five years of age, 5.4 per cent boys and 5 per cent girls are going to require admission to a public hospital for mental disease before they die. One person out of every twenty-two alive today will in our generation become so mentally diseased as to require entering a state insane hospital. In Michigan today there are in round numbers enrolled in our public schools, up to and including the eighth grade, some 900,000 children. Applying Dr. Pollock's expectancy tables to this group gives us the appalling picture of 45,000 children now attending the grade schools of our state

*This paper was read at the Governor's Conference on Child Health and Protection, Nov. 9 to 11, 1931, Lansing.

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who will be some day so mentally sick as to require state mental hospital treatment.

Admission to a state mental hospital, in and of itself, is no such terrible thing. Alarm characterized the press notices some weeks ago of Dr. Mayo's quotation of figures to show that approximately 45 per cent of all hospital beds in the United States are in nervous and mental hospitals: that the average daily patient population of nervous and mental hospitals is greater than that of all other hospitals combined: that the average daily number of patients in nervous and mental hospitals increased by 26,372 from 1928 to 1929 while that of general hospitals decreased by 5,793: that the average daily percentage of beds occupied is greater in nervous and mental hospitals than in all other hospitals. Our real cause for alarm should rest in the fact that too often mental hospitals are so crowded that patients urgently in need of admission at a time when treatment could be most effective cannot be admitted for lack of room. We must remember, too, that the number of patients in state mental hospitals is no criterion of the number of mentally sick in the community.

In Michigan in the thirty-three months "from July 1, 1929, to April 1, 1931, 23 children below fifteen years of age and 115 children between fifteen and nineteen years of age were admitted to State Hospitals for the Insane, there to live under the same conditions as the adult insane, and to associate with them on the wards. These children were neither epileptic nor feeble-minded. They were grouped as to diagnoses principally into four groups: Dementia-precox, psychopathic personality, manic-depressive and psychoneurosis. The number of psycho-neurotic and manic-depressive cases suggests the hopefulness of treatment, and the number of dementia-precox cases indicates the need of early intense treatment if they are not to deteriorate into permanent custodial cases. In my opinion these children have a right to the education and habit training suited to their ages and types of mental disorder, and their treatment should include an approach as near as possible to the recreational, occupational and educational life of a normal child.

"My idea was a unit in connection with a state hospital which would be equipped to provide suitable education and training for such children. Such a unit would, of

course, be more or less experimental, but I think the need and the material for it exist today within our state hospitals. The number in the hospitals is no criterion as to the actual number of juvenile mental cases needing such care, inasmuch as commitment to a hospital for the adult insane is now considered only as the last resort. I think that this children's unit should limit its patients to children below seventeen years of age, which is the upper age limit for juveniles in Michigan courts." The foregoing is a quotation from a letter by Dr. George F. Inch of the Ypsilanti State Hospital.

Greater cause for alarm is in our inability or unwillingness to coördinate our knowledge of causative forces and of remedial influences to any successfully integrated attack upon the subject. Certain of these mental diseases are due to the organic degenerative changes that are to be expected with increasing age: certain of them are due to degenerative changes that result directly or indirectly from infectious diseases of one sort or another: certain of them are due to degenerative changes resultant from extrinsic intoxications.

The majority of these psychotic states, however, are not the resultant of such more or less unavoidable conditions. They are the result of the failure of the individual to have attained that "adjustment to himself and to the world at large with such a maximum of effectiveness, satisfactions, cheerfulness and socially considerate behavior and the ability to face and accept the realities of life" which is called good mental health or a state of being free from serious mental handicaps. This such serious mental handicap is not something which develops suddenly when the adult breaks with the stock market crash or the youth breaks with some adolescent crisis. Rather it is a serious underlying weakness of self which goes back much farther, back to the days when the individual's character was really made, to the days of infancy and early childhood, when attitudes and responses were being so definitely determined that, unless by some good fortune denied at present to the majority, the nature of this handicap in character development can be recognized and remedied, the outcome must be more or less inevitable.

It is not enough to limit ourselves in our consideration of the mentally handicapped child to those who are showing today signs

of actual or even threatening mental disease. Where one form of mental disease, dementia precox, constitutes 35 per cent of all individuals under twenty years of age committed to hospitals for mental disease and because its continued course with no great interference to life makes up about 60 per cent of the population in every mental hospital, it is well for us to recognize such an individual when he presents his first symptoms: it is better to recognize the earlier prodromal tinges when treatment may be more effective, but how much more must we strive to learn the child X who under Y conditions equals D.P.

We must not overlook the increasing influence in this field that the child guidance clinics established by the Children's Fund of Michigan will play, and pray that as more specially trained workers become available their increasing number may increase their sphere of activities.

The same thing is true with the epilepsies. We are not today particularly interested in an epileptic who has reached the stage of characteristic deterioration except that we shall be guaranteed freedom from harm at his hands in the most humane and economic fashion possible. We should be interested in guaranteeing every hopeful epileptic as complete an understanding as is possible: to stop where possible as a result of treatment his attacks and the progress of the epileptic change in his personality: to ameliorate, where cure is not possible, the effects of the disease: to learn that there is perhaps in epilepsy a pre-epileptic state when conditions may yet be hopeful: to recognize that almost one-fourth of all epileptics concern young folks under twenty years of age and remember that many of these individuals are as educable as any other child. And yet in 1929 in our own state 379 children of school age were being definitely excluded from public school because of their attacks during school hours and thus being denied formal education from which they could profit. The demand for better organization around this problem is urgent.

Another group unrecognized in Michigan at present, so far as any official provision is concerned, is the group of individuals suffering from distressing changes of personality following epidemic encephalitis lethargica. This group is said to constitute 10 per cent of all mental diseases in persons under twen-

ty years of age. This is a condition practically unknown ten years ago. No formal recognition of this group with its particular problems has ever been made in Michigan.

There are in the United States estimated to be 10,000,000 handicapped children. Of this number 6,500,000 are estimated to be mentally deficient, of whom 850,000 are definitely feeble-minded and 5,650,000 intellectually subnormal.

The mentally deficient child up to this present White House Conference has been like the poor relation kept in the background when a feast was served but here surely he is invited right up to the table to sit with his natural friends, the physically and otherwise handicapped, on a plane of social equality. He is not played up here as the ineffective, the black sheep, the ne'er-do-well, the menace of society to be scorned by all and pushed beyond the pale where he may be forgotten as quickly as possible. Rather, along with his right to sit at the table with us on occasions like this, his handicap is likewise accepted as a challenge to us to find his aptitudes and his abilities that they may be given the fullest measure of possible development to the end that he may so far as possible become a social asset and not a liability. We have in the past been too largely concerned with what this type of handicapped person could not do or what he did that was objectionable socially rather than what he could be trained to do and how completely acceptable in humble spheres of a decent community he could be trained to become. It is true that there are those who might question some of the terminology of this report, or at least its interpretation, but hasn't that always been so, as with the question of "insanity"? Even the English with all the precision of their Mental Deficiency Act and their Education Act are forced at times to say "Mentally Defective within the meaning of the Education Act" as not being identical with "Mentally Defective within the meaning of the Mental Deficiency Acts."

The White House Conference Committee Report quite properly draws no qualitative distinction between the capacity of the higher grade feeble-minded and the intellectually subnormal or retarded except the one question of social adequacy versus social failure. 15 per cent, roughly, of the population of the United States does not possess a level of intelligence that will exceed a twelve year

mental age. A portion of this group of 15 per cent lack a something which under given situations renders them incapable of complete social adaptation and which requires for them continuing external care, supervision and control: individuals in this group (approximately 2 per cent of the whole) are the socially inadequate mental deficient or the feeble-minded. The larger portion of this 15 per cent group, whose intellectual level will not exceed a twelve year mental age, in the ordinary situation are individuals socially quite adequate and deserve to be classed as only intellectually subnormal or socially adequate mental deficient or perhaps mental retardates.

The most important need for the mentally deficient individual anywhere is his recognition. The idiot and the imbecile raise no difficulty. The higher grade of the feeble-minded or the morons, the mental retardates and the intervening border line group fail ordinarily when exposed to the traditional academic curriculum traditionally presented. Modern differentiated education has provided special programs, special technics of instruction and a sense of understanding by specially prepared instructors of the educational difficulties of the intellectually subnormal that permit the potentially adequate among them to progress in their type of educational achievement quite satisfactorily, without loss of self-respect and without creating in them any unhappy set against the social order. Where the defect in these individuals is not recognized and their special needs not properly provided for and they are held up to educational and other social standards beyond their capacity to understand and respond, we may find even in these same potentially adequate individuals either slumps which prompt them to give up permanently the struggle or rebellion which ingrains in them an unhappy set against the entire educational approach that comes to determine their attitude toward all social approach. It cannot be doubted that society itself, by requiring all children to remain in school until a fixed rather high age without furnishing in too many places a curriculum that is adapted to the needs and possibilities of many of these handicapped children (I am thinking more of individuals 75 to 85 I. Q. than I am of I. Q.'s below 75) is inviting upon itself the burden permanently of too many socially inadequate individuals who,

otherwise handled, might have become quite adequate, self-respecting, self-supporting and law-abiding.

In our state, according to the best figures available, there are sixty-two communities only that recognize, or at any rate furnish, differentiated education for this group of the mentally deficient. These sixty-two communities enroll a total attendance in such special classes of 7,930 mentally deficient children under the instruction of 363 teachers. This number of 7,930 mentally defective children represents approximately only 0.9 per cent of the total enrollment in all school districts of the state of children in the kindergarten and the first eight grades.

The blessing that these classes are is not appreciated too frequently by either the family of the child entitled to receive the benefit of them or the interested taxpayer. One wonders whether state-wide propaganda backed by some interested lobby in the way the Rotary Club has backed the crippled child might not popularize this work. It is a fact that a rather thorough search through the last three biennial reports of the State Superintendent of Public Instruction reveals absolutely no mention of the entire subject of special education for mentally retarded children beyond one line in the quotation from the synopsis of the special-class teacher-training program given by Dr. Elliott at the Michigan Normal College. This statement must not be misunderstood. The State Department of Public Instruction has done excellent work in providing the local school systems inspiration and assistance in their opportunity rooms for mentally defective children. Some of its publications by Berry and Elliott are perhaps classic. Yet the silence of the Annual Report on the subject gives an almost clandestine tinge to the work. The reason for this, of course, is obvious.

The mentally deficient in this state, like the mentally sick, have no friend at court. Propagandists have advanced the cause of the blind, the deaf, and the crippled. State aid is available for any community providing acceptable special class instruction for the deaf and the hard of hearing, the blind and the partially sighted, the orthopedic cripple and some others up to two hundred dollars per child over and above the cost of instruction in the regular grades. What legitimate reason, except the absence of

zealous propaganda, for the absence of similar state aid for their brother, the mentally handicapped child? Wider recognition and earlier treatment, in this case a socio-educational approach in the school and home, would prevent many a long residence in a state institution, corrective, penal or mental, and cost much less.

I haven't mentioned institutions for the feeble-minded. We need them. At the rate of one bed in feeble-minded institutions for each thousand of population Michigan requires today approximately 4,500 beds. Lapeer now has a population of 3,400 patients with approximately 700 mentally retarded children in the Wayne County Training School at Northville. Massachusetts actually provides at a rate of 1.2 beds per one thousand population. Massachusetts has a troublesome waiting list. Lapeer has a waiting list of over a thousand.

Michigan needs another institution for the feeble-minded. This additional institution should have had its planning started about ten years ago. Certainly the present institution at Lapeer should not be increased beyond its present colossal size.

I may have said little directly about the needs of the mentally handicapped child in Michigan. His needs are few in principle. Once these few needs in principle are satisfied, great will be the benefits that will just naturally well up to his advantage.

He needs worst, perhaps, the recognition of the universality of most of his problems with those of every other growing child—this would be guaranteed by a modern Children's Code.

He needs recognition of the increased demands for a fuller mental hygiene program: the price we pay for our rapid growth, our increasing urbanization, our industrial automatization—this would be guaranteed by a professionally spirited state mental hygiene department comparable to our State Department of Health.

He needs fuller statutory recognition of his educational problems as a state educational program.

With modern mental hygiene, modern child welfare and modern special educational programs in effect, I can see every detail of his needs just naturally follow; from each mental institution specially prepared diagnostic and consulting groups available for every city, town and village not large enough to provide these facilities so common in our

larger centers: every school superintendent required by law to notify the central mental hygiene department of every child in his system two or three or more years retarded for class age that the child may have the benefit of examination by these ambulant diagnostic groups: legislation to require the establishment of special classes for mentally handicapped children whenever in any school district ten or more or some other number are found so mentally deficient that they cannot profit from the traditional curriculum: changes in the law to insure that the responsibility residing in the state for those mentally handicapped children with continuing handicaps shall be recognized to exist whether the child is residing in a state institution or not: local development of greater interest in and more sympathetic understanding of the mentally handicapped child in his own community as a community problem, with the development of local committees to assist in devising new ways for his occupation at the end of his differentiated educational training, perhaps with subsidized workshops akin to the workshops of the League for the Handicapped.

With such a program the Mentally Handicapped Child in Michigan could be said truthfully to have attained his share of the claims of the White House Conference Bill of Rights that

The handicapped child has a right:

1. To as vigorous a body as human skill can give him.
2. To an education so adapted to his handicap that he can be economically independent and have the chance for the fullest life of which he is capable.
3. To be brought up and educated by those who understand the nature of the burden he has to bear and who consider it a privilege to help him to bear it.
4. To grow up in a world which does not set him apart, which looks at him, not with scorn or pity or ridicule—but which welcomes him, exactly as it welcomes every child, which offers him identical privileges and identical responsibilities.
5. To a life on which his handicap casts no shadow, but which is full day by day with those things which make it worth while, with comradeship, love, work, play, laughter, and tears—a life in which these things bring continually increasing growth, richness, release of energies, joy in achievement.

2. Are the following special examinations available in your county?

- Sigmoidoscopic.
- Cystoscopic.
- Broncho- and esophagoscopic.
- Retinoscopic, laryngoscopic, intranasal, etc.

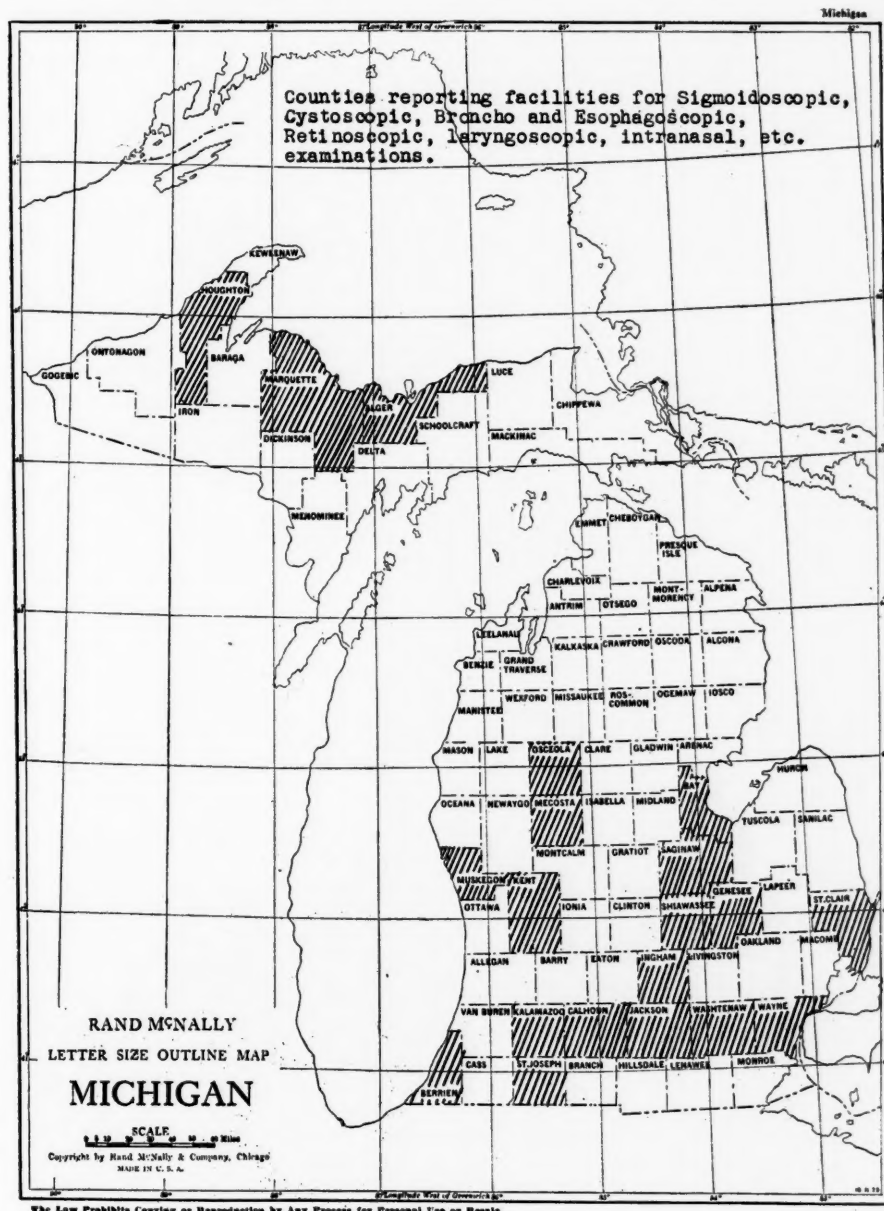
Remarks:

ing either separately or as part of the organization of a general hospital?

Remarks:

5. Are all of above facilities available to patients of limited or no means? If not, what facilities are available to such patients?

Remarks:



Map No. 2.

3. (a) Has your county an expert tissue diagnostic laboratory?

(b) Are there facilities for frozen section diagnosis?

Remarks:

4. (a) Is there any cancer research institute?

(b) Is there any cancer or tumor hospital?

(c) Is there any cancer or tumor registry?

(d) Is there any permanent cancer clinic operat-

TREATMENT

1. Is expert cancer surgery, both general and in special fields, available to patients of all classes in your county?

Remarks:

2. Is there a deep therapy plant in your county? What is its maximum voltage?

Remarks:

3. Is there any radium owned in your county? If so, how much is owned by any individuals or organized groups, i.e., how much is available for the treatment of any individual patient?
Remarks:
4. Is there any radium emanation plant?
Remarks:
5. Are local practitioners giving treatment with rented radium or emanation?
Remarks:

The series of state maps which are reproduced herewith were exhibited in a booth in the Scientific Exhibit at the recent state meeting in Pontiac. Our exhibit also displayed maps and charts showing the mortality from cancer in Michigan, prepared by the Michigan Department of Health. Charts



Map No. 3.

6. Is there an institution for the care of incurable cancer patients? If so, is it open to patients without means?
Remarks:
7. Is provision made for obtaining and recording follow-up information on all cancer patients from time of diagnosis to death or five year cure?
Remarks:

showing cancer deaths by age and sex groups in Detroit in 1930, prepared by the Division of Cancer Control of the Detroit Department of Health, were also shown.

In addition to conducting this survey the committee has also assisted various county societies in securing speakers and motion

Map No. 1 shows counties reporting a well equipped X-ray organization prepared to do gastro-intestinal studies, interpret bone lesions, etc.

RESULT OF SURVEY

This information is based on replies re-

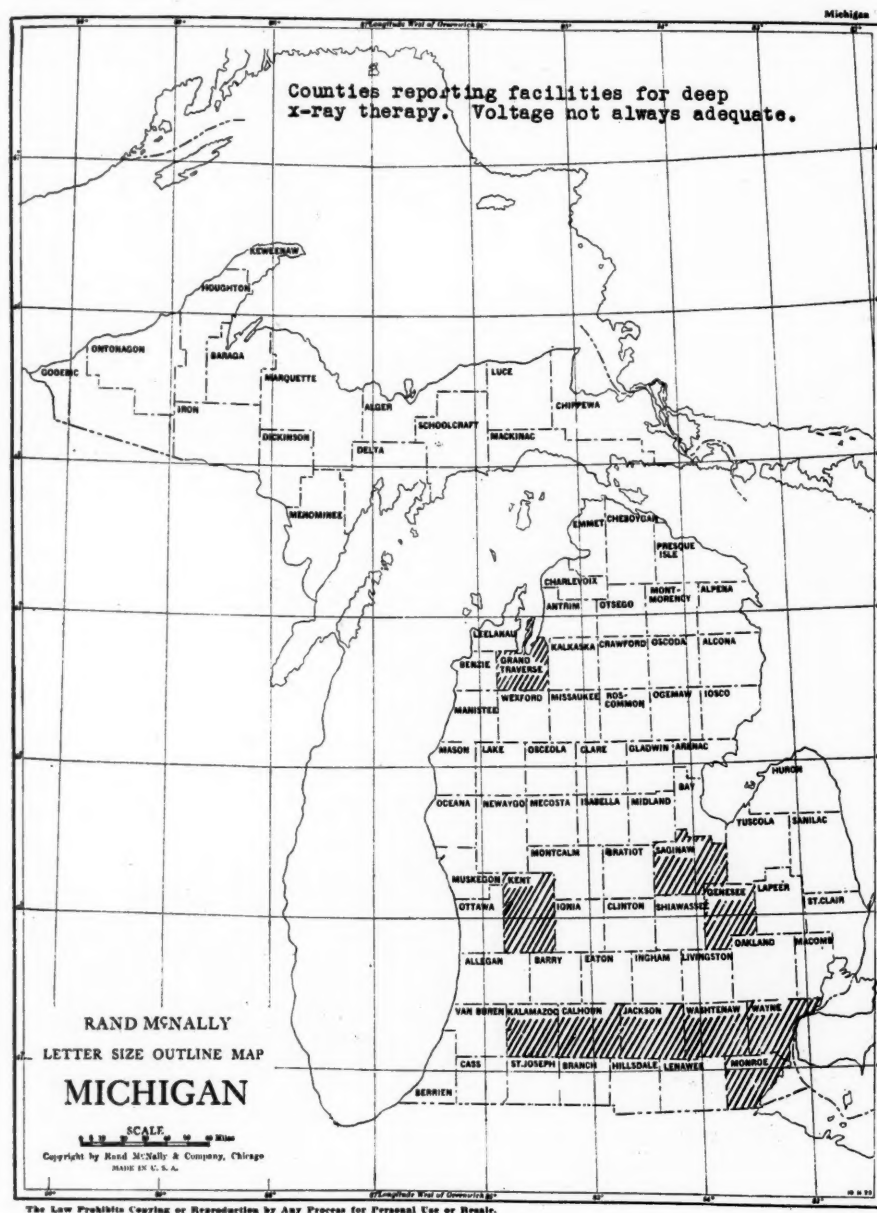


It is obvious that the value of all X-ray diagnosis is dependent upon the technical skill and clinical judgment of the roentgenologist. We are inclined to interpret this map as showing the location of diagnostic X-ray equipment. The experience and skill of the roentgenologists can be best appraised

by local practitioners. The importance of X-ray in diagnosing inaccessible cancer is steadily increasing.

Map No. 2 shows the counties reporting facilities for sigmoidoscopic, cystoscopic, broncho- and esophagoscopic, retinoscopic,

an expert tissue diagnostic laboratory including facilities for frozen section diagnosis. This important diagnostic aid is unfortunately available in only eleven counties, all in the southern half of the lower peninsula. Of course, tissue specimens may be sent



Map No. 5.

laryngoscopic, intranasal, etc. examinations. Here again the personal equation intrudes itself, and must be solved by local practitioners. The necessity for expert special examinations in many cases needs no comment.

Map No. 3 shows the counties reporting

from remote places to these laboratories and reports returned in a few days; however, the stimulating effect of proximity to the laboratory is a powerful one, and one which we would all like to see more widely operative. Furthermore, frozen section work done

during operation requires proximity of laboratory and operating room.

Map No. 4 shows counties reporting expert cancer surgery, both general and in special fields. By comparing this with Map No. 3 it will be seen that, in some counties, com-

Map No. 5 shows counties reporting facilities for deep roentgen therapy. This map shows similarity to Map No. 3 in the lack of facilities except in the southern half of the lower peninsula. The wide application of this agent in leading clinics, and the re-



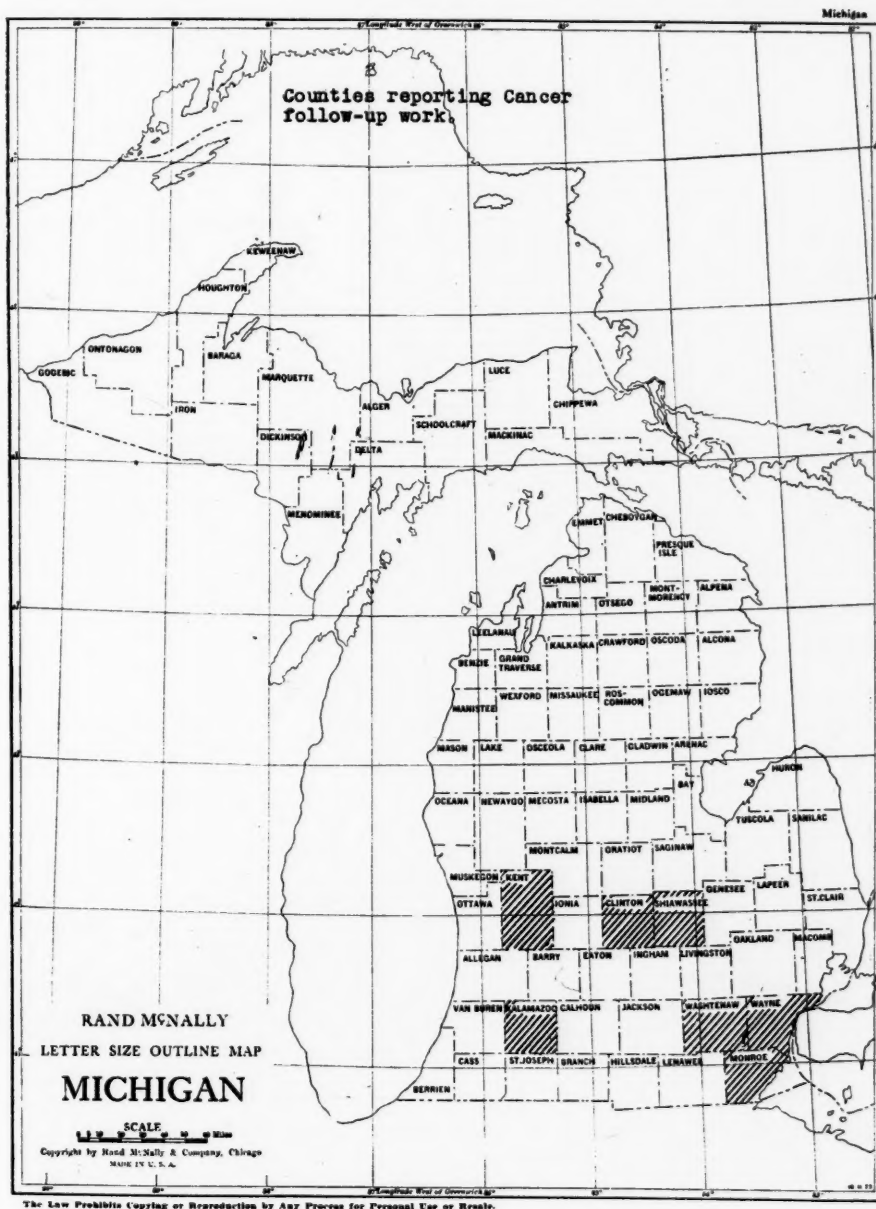
Map No. 6.

petent surgeons are handicapped by lack of frozen section diagnosis. To be sure, many cases can be perfectly well handled without frozen section work. However, a wider distribution of laboratory aids would be of great value to local surgeons.

sults of such treatment, leave no room for doubt as to the great value of such facilities in treating many forms of malignancy. In addition to the obvious need for expert knowledge of this powerful agent, best results are dependent on certain requirements

cancer surgery which must otherwise be neglected. Although radon may be secured from distant sources, the fact remains that its extensive and effective use has been developed only in cancer centers having such a plant.

dependent on ownership of the agent; it is, however, dependent on an adequate amount and its expert application. Access to radium or radon does not assure good radiation therapy any more than access to a knife assures good surgery. Rented radium and



Map No. 8.

Map No. 7 shows counties reporting use of rented radium by local practitioners. The net results of this practice, which is prevalent in various localities throughout the state, seem of rather dubious value. To be sure, the effectiveness of radiation therapy is not

emanation are no doubt much used in palliative treatment of hopeless conditions, which may be entirely unobjectionable. Two important results of ineffective or disastrous radiation are first the loss of precious time in cases having some chance of cure, and,

second, the adverse publicity which unfairly discredits this agent in any community.

Map No. 8 shows counties reporting cancer follow-up work. Follow-up activities may vary all the way from the attempt of a few men to follow their own cases, un-

of follow-up work. The value of follow-up information in cancer work is very great. In no other way can we learn the fate of any group of cancer cases or the value of any form of treatment. Everyone connected with cancer cases, the family physician, the



Map No. 9.

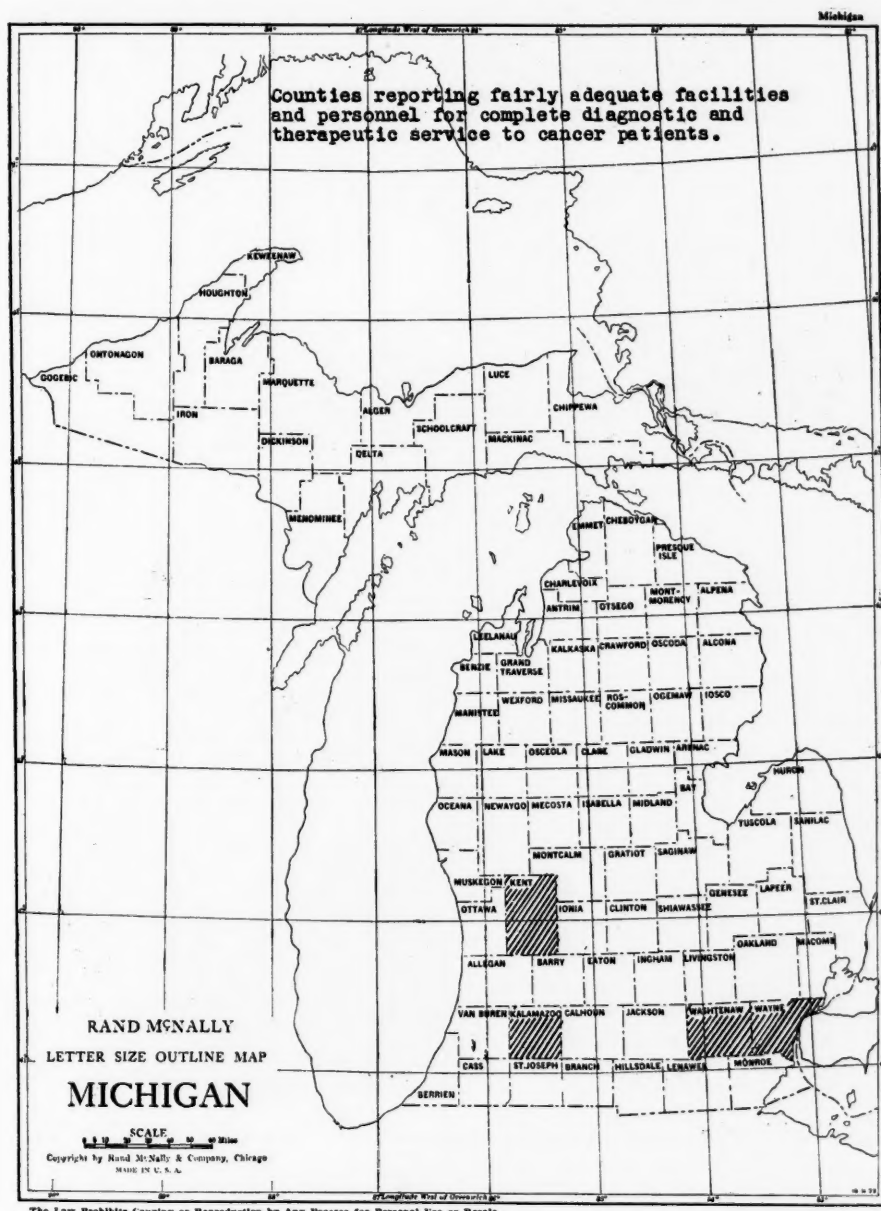
aided, to the operation of a central registry where practically all cases are registered and are then followed until death or five-year cure by the registry. The sporadic interest which a few men may take in the occasional case can scarcely be dignified by the name

surgeon, the roentgenologist, and the pathologist, can learn from this information; and to attain the degree of proficiency which the patient can expect of them, they must learn by just such means.

Map No. 9 shows counties reporting a

permanent cancer clinic operating either separately or as part of a general hospital. The benefits of a regular meeting of men interested in cancer work seem obvious. Such an arrangement multiplies the number of cases which each member of the group sees,

fairly adequate facilities and personnel for complete diagnostic and therapeutic service to cancer patients. This should not be interpreted as showing the only places where any cancer cases can be properly handled. Many cases can be promptly diagnosed and



Map No. 10.

enabling him to learn much more about cancer. It has the further advantage of frank discussion of cases, which is educational to the physician and in the best interests of the patient.

Map No. 10 shows counties reporting

properly treated without all of the facilities available in these four counties; however, a great many cases will suffer if denied the facilities and skill which, at present, seem available in only four counties. Furthermore, it should not be assumed that these

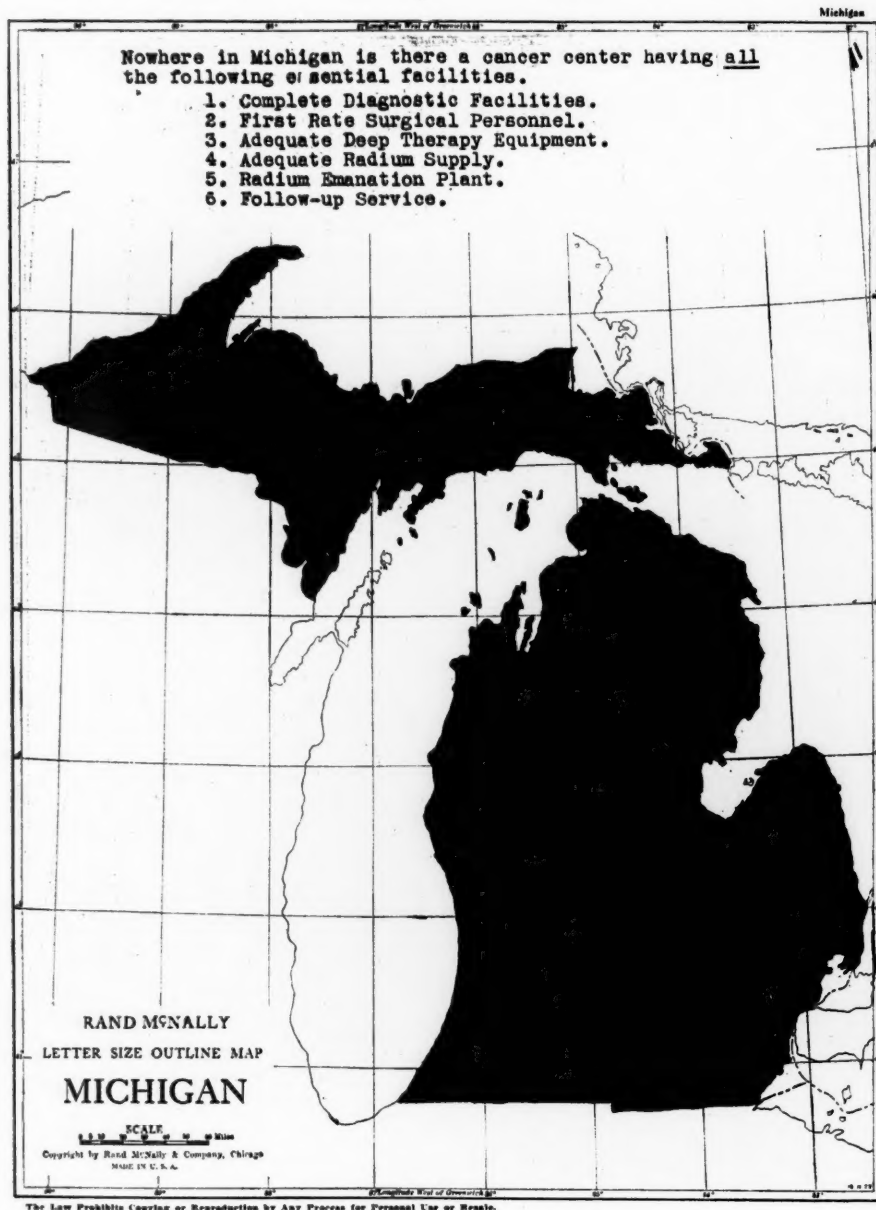
counties have *all* the facilities and skill which should be available there.

Map No. 11 is merely a graphic representation of the fact that the large, populous, and prosperous state of Michigan has not

6. Follow-up service.

CONCLUSIONS

This survey was undertaken as the first activity which our committee should logical-



Map No. 11.

yet developed a single cancer center having *all* of the following essential facilities:

1. Complete diagnostic facilities.
2. First rate surgical personnel.
3. Adequate deep therapy equipment.
4. Adequate radium supply.
5. Radium emanation plant.

ly pursue. A clear understanding of our problem seemed of primary and vital importance. This report is not published with the idea of depreciating the facilities for cancer work in this state or in any parts of it, but rather to broadcast knowledge of the situation as revealed by our survey.

TUBERCULOSIS IN CHILDREN AND ADOLESCENTS*

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DETROIT, MICHIGAN

How many physicians if asked to name the common communicable diseases of children would include tuberculosis in the list? You would mention diphtheria, scarlet fever, measles, whooping cough, mumps and chickenpox, but few would think that tuberculosis belonged in that group. A look at the mortality statistics, however, will demonstrate the fact that tuberculosis stands near the head of the column for all ages under fifteen, and when we include with the young children the adolescents under twenty, it leads the whole list by a wide margin.

TABLE IA

DEATHS FROM CHILDREN'S DISEASES IN MICHIGAN, 1930
AGES UNDER 5

	1930	1929	1928	Total 3 years
Tuberculosis	162	182	178	522
Diphtheria	122	211	175	508
Measles	186	111	253	550
Whooping cough	171	250	212	633
Scarlet fever.....	53	72	90	215

TABLE IB

DEATHS FROM CHILDREN'S DISEASES IN MICHIGAN, 1930
AGES UNDER 15

	1930	1929	1928	Total 3 years
Tuberculosis	288	339	313	940
Diphtheria	261	449	339	1049
Measles	217	139	288	644
Whooping cough	176	255	218	649
Scarlet fever.....	111	114	152	377

TABLE IC

DEATHS FROM CHILDREN'S DISEASES IN MICHIGAN, 1930
AGES UNDER 20

	1930	1929	1928	Total 3 years
Tuberculosis	524	614	613	1751
Diphtheria	270	459	345	1074
Measles	221	143	293	657
Whooping cough	176	255	218	649
Scarlet fever.....	110	114	152	376

With the children under five, sometimes diphtheria, measles or whooping cough cause more deaths in a single year when epidemics occur, but, as the table shows, tuberculosis causes a high mortality year after year. It is pandemic. It lives with us in an unobtrusive way all the time. Because it is not dramatic, we underestimate its ravages until at the end of the year the bureau of vital statistics casts up the account, and we find that as usual tuberculosis has taken a heavy toll. This conclusive evidence should fix the attention of physicians on tuberculosis as one of the most serious of the infectious diseases of childhood.

*Read at the meeting of the Michigan State Medical Society, Pontiac, September 24, 1931.

There are three distinct periods in the life of a child when there is a marked difference in their resistance to tuberculosis as shown by the death rate.

The graphic view of the tuberculosis mortality by age shows two peaks, one for those under five, the other after age ten. The valley between these peaks represents a comparatively immune period in the lives of children. For children under five the death rate is 32.9. From five to nine it drops to 10.2. It is 16.1 from ten to fourteen, and at age fifteen to nineteen it sharply rises to 71.8 and continues its ascent to 120.3 at twenty to twenty-four. This high rate is then not exceeded until after age sixty-five. These figures show that young children are very susceptible to tuberculosis. During the second five year period, however, they acquire some degree of immunity which enables them to resist tuberculous infection to a considerable extent, as the death rate is only one-third as high as in the group under five.

This comparative freedom from fatal tuberculosis is difficult to explain, as we know from experience that the per cent of children infected with tubercle bacilli increases with each year of life. Something happens during these years that hinders the development and spread of tubercle in the child's body. Unfortunately, this favorable condition does not last.

As the age of adolescence approaches, the death rate rapidly rises. The something that held in check the spread of tubercle is missing. We speak of this unknown factor as resistance. Why it is relatively high between the ages of five to ten and lacking in infancy and adolescence, we do not know.

Early diagnosis of pulmonary tuberculosis is important, but this is peculiarly difficult

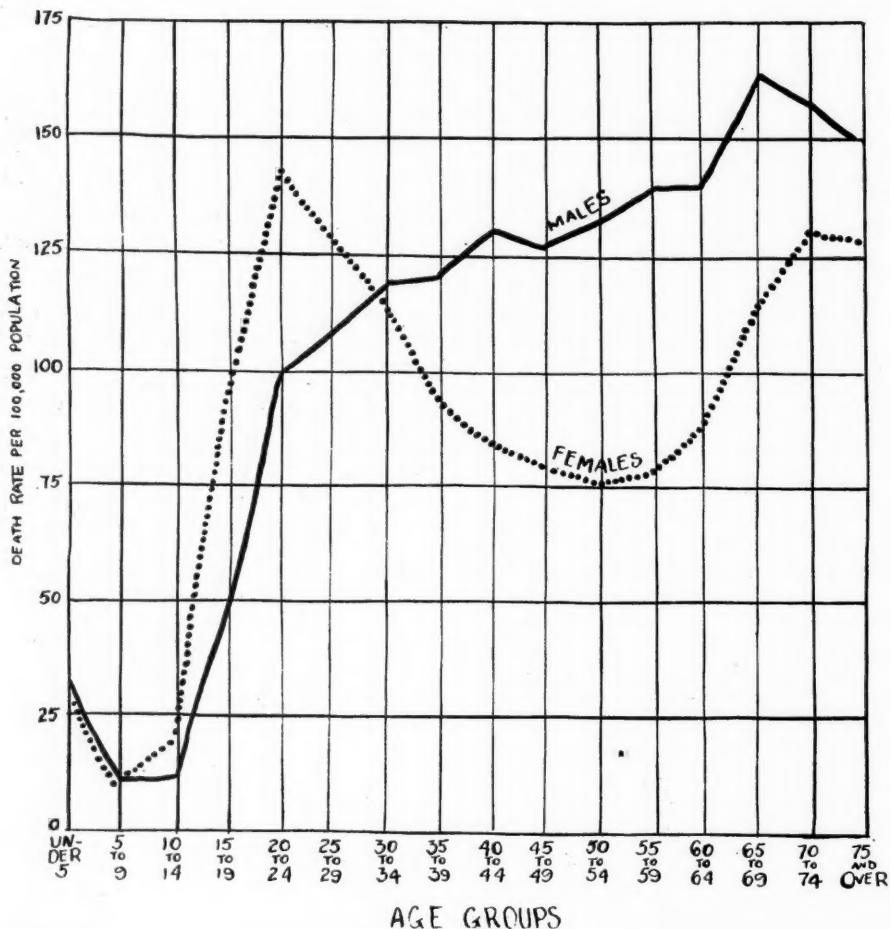
in children. When the tubercle bacillus is implanted in the pulmonary tissue, tubercles form, and about this focus there is a varying amount of inflammation. This perifocal reaction to the presence of tubercle may be small in area or involve the whole lobe. If

name of childhood type of tuberculosis.

In the evolution of tubercle, the center becomes caseous, and in this calcium is deposited. Fibrous tissue forms a capsule about the tuberculous nodule as healing takes place. It tends to run a benign course if

CHART I

TUBERCULOSIS DEATH RATES BY SEX AND AGE
UNITED STATES REGISTRATION AREA—1927



the latter, we have a lobar pneumonia of tuberculous origin. Such gross lesions are occasionally found in infants, more often in those of the colored race. To a lesser degree we find this condition up to five years, but seldom after that age.

Coincidentally with the development of tubercle in the lung parenchyma, tubercle bacilli are carried by the lymph stream to the tracheobronchial lymph nodes draining that area. Tuberculosis, therefore, in this primary stage involves both the lung parenchyma and the tracheobronchial lymph nodes. This is really the incipient stage of tuberculosis, which we now designate by the

further infection is prevented. When a child is exposed to further infection, or a spread occurs from its own primary focus, the disease resulting therefrom localizes in the pulmonary parenchyma and does not again involve the tracheobronchial nodes.

This is the adult type of tuberculosis which tends to become progressive, and in persons under twenty has a very high mortality. It is rarely found in young children, but as puberty approaches this form of disease is more commonly met with, and the percentage steadily increases with age up to about twenty-five years. The examination of many school children shows that the in-

cidence of this type of disease is about one in three thousand elementary grade pupils and one in 460 high school students. The roentgen examination of 2,700 college students showed the same percentage as among the high school group.

DIFFICULTIES IN DIAGNOSIS

The diagnostic criteria by which physicians determine the presence of tuberculosis in adults will not hold good for children. Râles are seldom found in the childhood type of disease. Impaired resonance is only present in gross lesions, and these cases are few. Therefore, auscultation and percussion are of little value in determining the presence or absence of tuberculosis in children. We are called upon to make a diagnosis in children when there are no characteristic symptoms and no physical signs. Fortunately, procedures are available by which this can be done. They are the use of the tuberculin test and roentgen examinations.

TUBERCULIN TEST

This is a very valuable aid, as by its use we can determine the presence of tuberculous infection. Its use should not be restricted to young children. It is of great value in adolescence, as infection in this country is far from universal. In high school and college students we find from 40 to 50 per cent of positive reactors. Indeed, in adults it is often helpful in clearing up a difficult problem in diagnosis, as when repeated tests are negative we can eliminate tuberculosis from further consideration.

The Pirquet, or cutaneous test, is equivalent to .01 mg. of tuberculin used by the Mantoux, or intracutaneous, method. The Pirquet test has some advantages to a physician doing an occasional test, as full strength old tuberculin is used, and this keeps its potency indefinitely. With the Mantoux method, dilutions of tuberculin are required. They must be carefully and freshly made and are therefore not always quickly available. This method, however, has this advantage: The amount of tuberculin given can be measured, and if the first dose is negative it can be repeated with a stronger dilution, thereby slightly increasing the percentage of positive reactors. For general use, however, in school clinics I agree with Pope,¹ who states in a recent paper:

"For practical purposes the scarification type of test may be considered equivalent to the intracutaneous test with .01 mg. of old tuberculin. In the series

of Aronson and Zacks at the Fernald School, seventy more children, or 5.1 per cent of the total, reacted to the .01 mg. than to the Pirquet test. Among 2,642 children tested in the Revere schools, only 4 per cent who were negative to the Pirquet test reacted to the first Mantoux test.

"If a single Mantoux test with .01 mg. or a Pirquet test, followed by roentgenograms of reactors, will pick out 90 per cent of children with significant tuberculous lesions, the use of additional tests means at least doubling the cost of examination to find an additional 10 per cent of cases. In Massachusetts there has been less popular objection to scarification than to any test involving a needle, and a slightly less accurate test which reaches a much larger proportion of the population may well uncover more tuberculosis than a method that is not generally acceptable to the public."

THE ROENTGENOGRAM

The tuberculin test is used as a screen to sift out from the mass the infected children. The roentgenogram is another screen that we use to study the positive reactors to find those that are diseased. We can by these means restrict the roentgen examination to those who react to the tuberculin test and thereby avoid the great expense of taking a film of every child.

SIGNIFICANCE OF THE DIFFERENT TUBERCULOUS LESIONS SEEN IN THE ROENTGENOGRAM

The pneumonic or infiltrated lesions denote a recent infection and the allergic response of the tissues to the presence of the tubercle bacilli. These lesions simulate a bronchopneumonia so much that a correct interpretation of the roentgenogram is impossible unless there are also associated lymph nodes projecting from the hilum or the paratracheal region. Lacking the confirmation supplied by such enlarged nodes, a second film should be taken after an interval of ten days or two weeks. If the condition was due to a non-tuberculous pneumonia, the density will have disappeared. If, however, the exudative infiltration was tuberculous, then no definite change will be noted, as such infiltrations will remain for many months. The clearing gradually takes place from the periphery until a small nodule remains, and in this calcium is slowly deposited. The interval between infiltration and a well calcified nodule is about two years. During the stage of infiltration there is always danger of dissemination of tubercle bacilli through the blood stream to the bones or meninges with serious results. When calcification develops, the encapsulated nodules become less of a hazard, but as they contain living tubercle bacilli they remain

somewhat of a menace well on into adult life.

Zacks² reports "in a study of over 100,000 school children that those with nodular lesions were found in two out of every hundred children, and in a series of 110 children found with the adult type of tuberculosis 66.3 per cent had associated nodular lesions, showing that they had had a previous childhood type of disease. Children with these lesions are twice as prone to develop later the adult type of tuberculosis as was a controlled group that reacted to the tuberculin test but in whom no nodules were found."

He also tabulated the subsequent history of the 110 children who had the adult type of tuberculosis and who have been under observation for about five years. Eighty-seven were classified as having the adult type of pulmonary tuberculosis on the first examination. Twenty-three others were found at subsequent examinations to have developed that disease from among the group first classified as having the nodular or childhood type. The average interval between the finding of the childhood type and the discovery of the adult type was 3.5 years. The ages varied from seven to seventeen years, the average age being 13.5 years. The ratio of boys to girls was one to 2.8. Two out of every three cases were exposed to a known source of infection at home. Bilateral lesions were found in 20 per cent of the boys and 46.9 per cent of the girls. Subapical lesions were observed in 28.3 per cent in the girls and 20.6 per cent in the boys. Associated childhood type lesions were found in 66.3 per cent. The girls presented nine cavities, six of which were below the apex. The boys presented two cavities, and both were in the apex. Seventy-seven per cent of these children were persistently below the standard weight line. That is not so surprising as is the fact that 23 per cent of them were average or above average weight when first found to have tuberculosis.

TABLE II

ADULT TYPE PULMONARY TUBERCULOSIS
BASIS FOR DIAGNOSIS, 110 CHILDREN
AVERAGE AGE, 13.5 YEARS

	Boys	Girls	Total	Per cent
X-ray	15	45	60	54.54
Râles and X-ray.....	5	16	21	19.09
Râles, symptoms and X-ray	7	17	24	21.81
Symptoms and X-ray.....	2	3	5	4.54
	29	81	110	99.98

The above table shows that more than half of the 110 cases of pulmonary tuberculosis in children exhibited no symptoms or signs of the disease. The diagnosis was made entirely from the roentgen examination. That is important to bear in mind, as it shows that early tuberculosis may exist in boys and girls when they appear to be in excellent health.

We are not justified in saying that a boy or girl that reacts positively to the tuberculin test does not have pulmonary tuberculosis because there are no physical signs or symptoms of disease. The group with a history of contact with an open case of tuberculosis will show the highest percentage of cases, but there are many children living in homes with concealed or undiagnosed cases of tuberculosis. Therefore, we cannot put too much dependence on a negative family history.

When râles and symptoms appear, the period most favorable for treatment has passed. Tubercle bacilli in the sputum are rarely found in children except in advanced disease, and such cases usually go on to a fatal termination in spite of treatment.

TABLE III

ADULT TYPE PULMONARY TUBERCULOSIS
RESULTS 4.6 YEARS AFTER DIAGNOSIS

	Number	Dead Per cent	Progressed Per cent	Stable Per cent	Unknown Per cent
Boys	29	10.3	48.2	34.4	6.8
Girls	81	23.4	48.1	22.2	6.1
Total	110	20.0	48.1	25.6	6.3

This table illustrates the gravity of pulmonary tuberculosis in children. The mortality among girls is more than twice that of boys. The average duration of life of those that died was 3.2 years after diagnosis was made. The minimum period was six months and the maximum seven years. Two additional deaths have occurred since the above table was made, and this brings the mortality up to 24 per cent. Forty-eight per cent were progressive, and in only 25 per cent was the lesion as shown by roentgenogram found to be stationary or retrogressive.

To lower this very high mortality, not only must diagnosis be made before symptoms appear but aggressive treatment must

be instituted at once. Treatment should be bed rest combined with pneumothorax or phrenicectomy, depending upon the extent and type of lesion. I think the high mortality shown in these reported cases can be reduced if adequate treatment such as I have mentioned is carried out without delay. No dependence can be placed on gain in weight, normal temperature or lack of symptoms in judging the progress of the disease in these young patients. If kept in bed, they will often put on weight, be afebrile, have good color and feel well for a considerable time, while the disease is steadily progressing. The appearance of the lesion as shown in serial roentgenograms is the best available guide as to the real condition of the patient. These films should be taken frequently and treatment based on what they show, rather than on physical signs and symptoms, which are frequently very misleading.

I wish to acknowledge my indebtedness to Dr. Zacks² of the Massachusetts Department of Health. I have made use of two of his tables and some of the deductions in his study of the 110 cases of pulmonary tuberculosis in children. I was associated with him for five years while these school clinics were being held and made most of the roentgen interpretations upon which the original diagnoses were based.

We have stressed the need of early diagnosis in pulmonary tuberculosis so that prompt and effective treatment would be given. Here is a group of children who have been diagnosed early, but regardless of that at the end of five years 24 per cent are dead and about 50 per cent more are progres-

sive cases. These results are certainly discouraging as far as treatment is concerned.

No tabulations have been made showing what treatment was given in this group of cases. I know that in some instances it was impossible to convince the parents or the family doctor that a child without symptoms or râles in the chest needed to be excluded from school and given rest treatment. The doctor was skeptical of the diagnosis based entirely upon a small infiltration in the lung when the child was robust in appearance, felt well and wanted to go on living a normal life. Delay followed delay, and in the course of time when symptoms and signs were evident the patient was sent to a sanatorium. Then bed rest, more or less complete, was given. It is not enough—collapse therapy, either phrenicectomy or pneumothorax, or both, should be done as soon as the roentgen diagnosis is made, regardless of symptoms or whether râles can be elicited.

Pulmonary tuberculosis in children is of the fulminating type. Its approach is stealthy, its progress rapid. It must be met with more heroic measures than are necessary in adults. We must suspect it in apparently healthy children. We must tuberculin-test them; we must give the reactors a roentgen examination; and when we find one with even small parenchymal infiltrations of the adult type, we must persuade them to give up all else and submit to aggressive treatment.

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THE ADVICE IS GOOD

Some do's and don'ts concerning the subject of threatened malpractice suits are given in a very instructive article in the *New England Journal of Medicine* for April 16, 1931. Among other interesting items we note the following: "A fluoroscope has its place, no doubt, but in diagnosing fracture and discerning apposition there is no substitute for an X-ray. The X-ray is evidence that can be produced. It is concrete. What you saw in the fluoroscope was happening at the time, but it cannot be produced to prove that you got apposition when later the patient removes his cast without your knowledge or does some other act that causes loss of apposition." Here is another timely suggestion: "Please don't criticize, particularly to the patient, the treatment given by some other doctor before

the patient came to you. You see the result, nothing more. You do not know the whole story. You do not know what the original condition was, what the other man encountered in the way of difficulties or whether he had proper coöperation from the patient. Wait until the evidence is all in. You may have to change your mind when you get all the facts. You may be wiser but at least you will know what you are talking about." To this we may add the injunction to be careful about what you say and to whom you say it, for in an unguarded moment you may give to a relative, or even a lawyer, a club that later will be used to beat you, and always remember that there are plenty of people who are trying to get something for nothing and it is easy to attempt to blackmail a physician and force him to pay indemnity for an alleged malpractice.—*Indiana State Medical Journal*.

A NEW METHOD OF STUDYING EDEMA*

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At the present time, the almost universal method of studying the progress of edema is by correlating changes in body weight with the difference in fluid intake and urine output. Not infrequently such data result in a rather paradoxical type of chart as seen in Fig. 1. Here there is a consistent gain in weight. This gain is interpreted as increase of edema, since the patient was assumed to be on only a maintenance diet. If we assume that the gain in edema during Periods I and III was due to fluid intake being greater than urine output, then it is impossible, with the available data, to explain the gain in weight during Period II, when the opposite conditions existed.

In Table I are listed the various possibilities to explain gain in body weight. The word "balance" indicates that intake and output are exactly the same, referring either to water or calories. "Positive Exchange" indicates that intake is greater than output; and "negative exchange" indicates that intake is less than output. These refer again to either water or calories.

After reviewing these possibilities, one can readily understand that considerable more data than merely fluid intake and urine output are necessary for accurately interpreting changes in body weight. Changes in body weight are the resultant of all those factors which are concerned in a complete water and caloric exchange. All sources of water, both into and out of the body, must be considered. Likewise, the amount of calories going into the body and being dissipated by it must be known in order to determine whether body tissue has been gained or lost.

Newburgh and his coworkers of the University Hospital, Ann Arbor, have devised a method by which all these data can be determined. By applying this method the progress of edema can now be studied accurately for the first time.

The most direct approach for the determination of water exchange is by way of the caloric exchange. The body is continually gaining a small amount of weight by the absorption of oxygen during respiration. But this gain is exceeded by the continual loss of carbon dioxide by respiration and water by evaporation. This loss of weight is called the "insensible loss," and is expressed by an equation as equal to the water

vapor lost plus the carbon dioxide lost minus the oxygen absorbed. Table II indicates the manner in which the "insensible loss" is determined. If, for every twenty-four hours period, one adds to the body weight at the

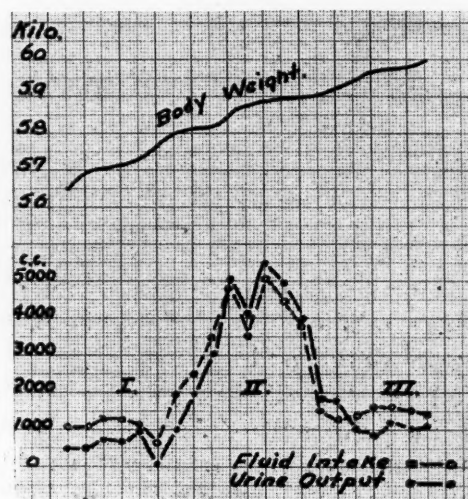


Fig. 1.

beginning of the period the weight of food and water taken during that period, and from this sum subtracts the combined weight of the body at the end of the period, plus the weight of the stool and urine lost, the difference is the "insensible loss" for twenty-four hours. The carbon dioxide-oxygen difference can be determined as described by Newburgh. Having then only one unknown in the equation, the amount of water vapor lost is easily determined.

In order to evaporate 1 gram of water, 0.58 calories of heat are required. Thus it is easy to calculate how much heat is lost from the body by water evaporation. Newburgh and others have shown that the amount of heat thus lost constitutes 24% of the total heat lost by the body every

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twenty-four hours. Thus the total heat requirement of the body can be determined. Knowing the heat requirement, the total nitrogen excretion and the carbohydrate of

course, the opposite will take place if the body stores protein or fat. The amount of preformed water is found by multiplying the amount of protein or fat by the factor

I. Water Balance	Tissue Gain
Pos. Caloric Exchange	
II. Pos. Water Exchange	Edema Gain
Caloric Balance	
Pos. Water Exchange	Tissue Plus
III. Pos. Caloric Exchange	Edema Gain.
Pos. Water Exchange	Edema Gain >
IV. Neg. Caloric Exchange	Tissue Loss.
Neg. Water Exchange	Tissue Gain >
V. Neg. Caloric Exchange	Edema Loss.

Table 1.

the diet, one can determine the exact amounts of protein, fat, and carbohydrate burned in the body. This is called the metabolic mixture. By comparing the metabolic mixture with the contents of the diet one can determine the amounts and kinds of body tissue either stored or burned.

Table III indicates the sources of water, in and out, which must be considered. The amount of water in the drink and food is easily determined by weighing them as prepared, completely drying, and determining the amount of water lost by evaporation.

When a candle burns, a definite amount of carbon dioxide and water is formed in the chemical reaction of oxidation. Likewise, when protein, fat, and glucose are burned in the body the same oxidation takes place, and water is formed. This water becomes as available to the body as the water taken as drink, and must be considered as such. This is called the water of oxidation, and is determined by multiplying the amount of protein, fat, or carbohydrate burned by the factor indicated in Table III.

If the patient is not receiving enough food to meet the body requirements, body protein and fat must be burned. In the burning of these tissues, water of oxidation is likewise formed. In addition, there is a certain amount of water held by protein and fat in the physical state of adsorption. When the tissue is burned, this additional water is freed, becomes available to the body and is called the "preformed water." Of

Insensible Loss = Water Vapor + (CO₂ - O₂)	
24 Hour Period	
8 ⁰⁰ AM	8 ⁰⁰ AM
Body Weight	Body Weight
+ Food	+ Urine
+ Water	+ Stool
minus	
Insensible Loss.	

Table 2.

WATER IN	WATER OUT
1. Drink	1. Urine
2. Food	2. Stool
3. Oxidation:	3. Water Vapor:
Protein x 0.41	Lungs
Fat x 1.07	Skin
Carbohydrate x 0.60	
4. Preformed:	
Protein x 3.0	
Fat x 0.1	

Table 3.

indicated in Table III.

The water of the urine and stool is determined in the same way as for food, i.e., by drying. The determination of the amount of water lost by evaporation has already been explained.

Having now the relation between ingoing and outgoing calories, and ingoing and outgoing water, one is able to determine how much body tissue is lost or gained separately from the amounts of edema lost or gained. The resultant change in body weight can be interpreted and even predicted.

Figure II shows the complete data on a patient with chronic nephritis and edema, and illustrates the practical importance of this method. This patient was a boy of 15 years, who had previously been in the hospital with general anasarca, coma, and convulsions. He responded to treatment and was discharged. He returned for check-up and had been gaining weight. The question arose whether the gain in weight was body tissue or reaccumulation of edema. If edema, it would be imperative to begin treatment immediately in order to avoid

another general anasarca. A complete study revealed that the boy was gaining 30 grams daily, which was the resultant of having burned 73 grams of fat, storing 21 grams

that the patient should have 500 calories added to the diet, that the protein was sufficient for nitrogen balance and that treatment for the edema should be started immediately.

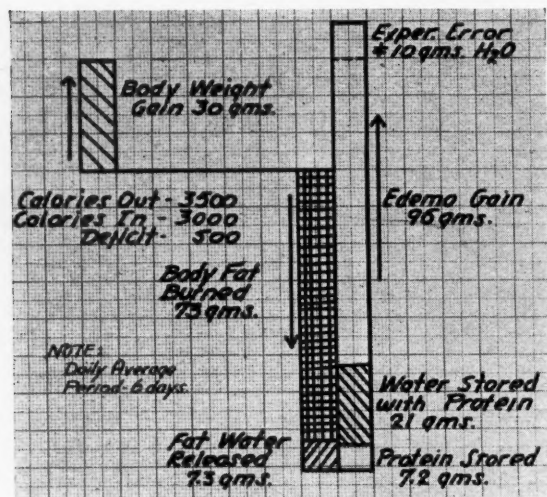


Fig. 2.

of protein and accumulating 96 grams of edema daily. From these data it is obvious

CONCLUSION

This method has not been presented with the illusion that it is practical from the general practitioner's standpoint. It is presented, in the first place, to point out the futility of attempting any conclusions regarding the progress of edema by changes in body weight correlated with fluid intake and urine output. This is especially true in the "latent" type of case, for which treatment holds its greatest benefit.

Secondly, we are studying the effectiveness of various types of treatment for edema in this manner. Some knowledge of the method used will help the physician to better evaluate the results obtained and have a clearer conception of the treatments to be advocated.

ALLERGIC DISEASES IN CHILDREN

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During the past few years a decided increase in interest has been manifested in a group of symptom-complexes referred to as "Allergic Diseases." Pirquet defined allergy as a changed capacity to react to foreign substances. About 1 per cent of the population develop symptoms due to this abnormal reaction. We recognize today that certain individuals are born with a constitution enabling them to develop various phenomena such as asthma, hay fever, eczema, migraine, urticaria, angioneurotic edema, neurological and gastro-intestinal complexes, and various other manifestations presenting more obscure symptoms. In no field of medicine can the possibility of allergy as an etiological factor be ignored. In the practice of pediatrics, in particular, is a knowledge essential of the allergic nature of many of the symptom-complexes frequently met with. These diseases are due to a fundamental basic pathology. This constitutional make-up is definitely inherited. A positive family history is obtained in from 50 per cent to 80 per cent of allergic conditions. There is no in-

heritance of the symptom-complex or the specific sensitizing agent. A father may have hay fever due to pollen, yet his infant has eczema due to wheat. In other words, it is a constitutional inheritance, not a specific disease or specific sensitivity which is inherited. When there is a positive allergic history in both parents, the possibility of the offspring escaping is very much reduced.

These individuals may become sensitized to foods in utero as has been shown by Ratner, or develop sensitizations later on in life. An individual may become sensitive to a great variety of alien agents, including foods, pollens, drugs, feathers, furs, smoke, dust, vapors, oils, animal sera, bacteria, insect toxins, and specific physical agents such

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as cold, heat, light and mechanical irritation. It must be remembered that an individual once sensitive is always a possible sufferer, although the sensitizing agent and nature of the allergic response may vary from time to time, or entirely disappear.

In infancy, foods are the chief sensitizing agents and eczema the most frequent allergic phenomenon. With increasing age, new sensitizations, including inhalants and epidermals, are acquired and others lost; asthma or hay fever may now manifest themselves. Multiple sensitization is frequently found. At any age, however, any type of sensitization and allergic phenomenon can and does occur.

The allergic nature of a symptom-complex can often be diagnosed because of these characteristic findings:

1. The symptom-complex is often typical, such as asthma, hay fever, urticaria, and eczema.
2. There is usually a positive family history of allergy.
3. Other allergic symptoms may have been or may be still present.
4. The symptoms may be caused by a definite association with a foreign substance, removal of which causes a disappearance of the symptoms.
5. The allergic individual frequently responds to skin tests which may demonstrate the cause of his symptoms.
6. Eosinophilia—from 3 to 20 per cent—especially during the active phase of the condition.

In carrying out the skin tests, I have found the cutaneous test more practical for children. Small abrasions are made with a needle or Pirquet borer, on the flexor surfaces of the forearms, front or the thighs or on the back. A small amount of tenth normal sodium hydroxide is applied to each abrasion. A small amount of dry protein extract is then rubbed into each scratch. Reactions usually appear in fifteen minutes. Delayed reactions are not uncommon, and for this reason readings should again be made in twenty-four hours. Reactions in children are frequently faint and difficult of interpretation. A slight erythema may indicate an extremely significant etiological agent.

Intradermal tests are valuable where negative results are obtained with the scratch method. They are, however, much more

difficult to perform in young children and infants, and are not entirely devoid of danger. Severe reactions resembling anaphylactic shock have occurred following an intradermal injection in very sensitive patients. In some cases, due to its greater sensitivity, too many positive skin tests are obtained with the intradermal test. Delayed reactions occur also with the intradermal tests.

Peshkin has pointed out that the scratch test is superior for detecting sensitization due to rabbit hair, horse dander, rag-weed, cotton-seed, duck and goose feathers, cat and dog hair, mustard and egg-white. He has shown that the intradermal test is more efficient for house dust, chicken and chicken feathers, wheat and corn.

It is felt that group tests are very unreliable. In a group of proteins as small as whole-wheat or whole milk, one frequently finds negative results for the whole substance, but a positive result for one of its constituents. For example, lact-albumin may be positive and whole milk negative. Frequently one elicits a positive test for wheat-proteose and a negative test for whole-wheat. In general the larger the group used, the greater the possibility of negative results.

In attempting to discover the role played by a specific food in any allergic disease, a careful history of food dislikes is especially important in children. In the absence of positive skin tests, elimination of suspected foods and other factors is a practical and valuable procedure. The diagnosis and treatment of the allergic diseases is not a laboratory procedure but demands a most careful history in all cases, careful supervision of the diet and environment, as well as accurately performed skin tests and thorough X-ray and other laboratory studies.

SKIN MANIFESTATIONS

Eczema is the most frequent manifestation of allergy in children, and is the earliest manifestation met with. As in all allergic diseases, a carefully taken history is of the greatest importance. The onset of the eczema may be in relation to a definite food or a change in environment. In 30 per cent of cases of infantile eczema, wheat, milk or egg can be shown to be the exciting cause. Skin tests should be performed for these and other foods taken by the child. The origin of the many carbohydrates used in

modifying formulas must be considered. Some are made from corn (Karo syrup), wheat and barley (various dextrin-maltose preparations), and cane and beet sugar. One must also consider external causes, such as orris- and rice-containing face powders, wool, cotton and silk fabrics, soaps, animal hair, feathers and house dust. The offending agent can often be determined by means of skin tests. Substitutions can then be easily made for all items in the child's diet and environment, except milk. In milk-sensitive cases, heated milk (milk boiled one hour and evaporated milk) or dried milks, are often tolerated. In some milk-sensitive cases, a soy-bean flour substitute (Sobee) can be used instead of milk. This preparation, which theoretically should be of great value, is frequently poorly tolerated by the infant, and in some cases refused. In many milk-sensitive cases, very favorable results can be obtained by desensitizing with injections of milk.

The breast-fed infant, in whom any item in the maternal diet may be the offending agent, presents a more difficult problem. Preliminary skin tests should be done for the more common foods. If the cause is discovered in this group, these foods are omitted from the mother's diet. If the tests are negative, the mother is placed on a diet from which is eliminated all foods except those for which the skin tests are negative. Sensitivity to the breast milk per se is rare. Sensitivity to one of the foods coming through the mother's milk is common. Weaning the infant because of eczema should not be advised until all other possibilities have been carefully investigated. If necessary, a nursing mother can be put on a milk-free diet (if the infant is sensitive to cow's milk) without impairing the milk supply.

In all cases of eczema, local treatment must be judicious and prolonged. Especial reference should be made to the relationship of seborrhea ("cradle cap," "milk crust") of the scalp to infantile eczema. In the presence of this condition, the eczema tends to persist despite the removal of an apparently offending food protein. One frequently obtains a history of seborrhea of the scalp preceding the eczema. Many cases must be considered as due to the irritating effect of scaly particles dropping onto the face from the scalp. The use of a weak

modified Whitfield's ointment on the scalp frequently clears up the adjacent facial eczema.

Local treatment of the eczema itself is chiefly concerned with allaying the itching by means of soothing antipruritic ointments, the application of crude coal tar and coal tar distillate ointments, X-ray and alpine light therapy. In all cases of eczema a secondary fungus infection is usually present. This is especially true of the chronic type in older children involving the flexor surfaces of the knees and elbow-joints. Treatment must therefore be directed not only toward removal of the sensitizing agents, but also to clearing up this secondary infection.

Urticaria and angioneurotic edema are extremely difficult problems. In many of these cases the allergic factor can be ascertained from a careful history of new foods. Skin tests in these conditions are very unreliable and frequently impossible to elicit. One must rely chiefly on a careful history and a series of elimination diets to determine the causative factors. General treatment consists in measures to elevate the patient's nutritional condition, and treatment or removal of foci of infection such as infected teeth, tonsils, adenoids and sinuses. Chronic constipation if present must be overcome. In a few cases, removal of a chronic appendix has cleared up the urticaria. Local anti-pruritic measures are valuable for temporary relief. Adrenalin injections give rapid but transient relief. Recently I have found subcutaneous injections of calcium gluconate of value in decreasing the frequency of the attacks.

ASTHMA AND ALLERGIC BRONCHITIS

The diagnosis of the etiological factors in asthma requires a very careful history and physical examination, carefully performed and complete skin tests, and complete laboratory study. Frequently a careful study of the patient's home and other environmental factors are necessary. Other causes of wheezing in children, such as foreign body in the air passages, enlarged hilus glands, cardiac disease and enlarged thymus gland, should be ruled out.

In many cases a definite sensitizing agent can be found. In others the asthma seems to be related to recurring upper respiratory infections. In these cases the infection apparently acts as the precipitating cause. The

asthmatic child is comparable to a "loaded gun," the "trigger" being pulled by a number of exciting causes, such as infection, contact with a sensitizing agent, exposure, changes in temperature, emotional upsets, and other non-specific disturbances. The treatment consists in removing any specific sensitizing agent, the use of elimination diets to determine specific factors, and changes in environmental factors, such as bedding and pillows. The use of vaccines to prevent the onset of frequent colds has given excellent results. The child's resistance should be built up as much as possible. Enlarged hilus glands should be treated with X-ray therapy and alpine light. Infected sinuses should be treated as much as possible medically. The removal of tonsils and adenoids should be done only after prolonged study and in cases showing marked pathological changes. Many cases are made worse by operations in the nose and throat and such measures should be advised only after careful selection of cases.

In some cases excellent results have been obtained by means of nonspecific protein therapy. The method of choice is either milk injections or the use of catarrhal vaccine, which latter may also decrease the upper respiratory infections.

Allergic bronchitis should be viewed as the precursor of asthma. It is characterized by a chronic dry cough frequently spasmodic in nature resembling whooping cough. There is no evident wheezing, but examination of the chest usually reveals numerous coarse sibilant and wheezing dry râles. It is important to recognize that many cases of chronic bronchitis are allergic in nature. Eosinophilia is frequently present. Even its absence should not deter one from a careful allergic investigation of any case of chronic cough of unknown etiology. Tuberculosis, bronchiectasis, sinusitis and septic adenoids and tonsils must be ruled out as the cause in these cases. The diagnosis and treatment of allergic bronchitis follow the same general plan as outlined for asthma.

The question of removal of adenoids and tonsils in cases of chronic bronchitis, which may be allergic in nature, should be cautiously approached. Many cases of allergic bronchitis develop typical asthma following removal of adenoids and tonsils. I have advised removal of these tissues in some

cases that were definitely allergic in nature only after a long period (one to two years) of freedom from symptoms, and never under four years of age in this type of case.

HAY FEVER AND ALLERGIC RHINITIS

Seasonal hay fever is not uncommon in children. The early spring type, due to the pollination of trees, is of short duration and usually desensitization is unnecessary. The summer type (commonly referred to as rose-fever) is due chiefly to the pollination of June grass, timothy, orchard grass and red-top. The fall type is chiefly due to the ragweeds, sage and cocklebur. Many other plants pollinate during these periods but in the diagnosis and treatment of hay fever only the wind-pollinated plants need be considered. Patients should however be advised to avoid close contact with all plants during the hay fever season. Treatment consists in determining the specific pollens involved and desensitizing with correct mixtures. The dosage and rate of increase varies with each patient. The treatment must be individualized. The number of injections varies from fifteen to thirty and the final dose from five thousand units (.5 c.c. 1 per cent solution) to 60,000 units (2 c.c. 3 per cent solution), or more. Because of the great individual variation in tolerance, successful treatment cannot follow a routine, but depends upon a careful study of each patient. The injections should be continued at weekly intervals throughout the entire season to insure against loss of tolerance.

Recently the continuous treatment of hay fever cases at three to four weeks interval, all year round, has been advocated. This method seems to offer greater hope of permanent cure and is well worth trying.

One sees frequently children who have apparently "colds" all year round. These cases are variously diagnosed, sinusitis, septic adenoids and tonsils and upper respiratory infection. Many of these cases are perennial hay fever or allergic rhinitis. Smears of the nasal secretion usually show eosinophilia in the allergic type. The nasal mucous membranes present a typical bluish turgid appearance with a thin sero-mucoid exudate on the surface.

The etiological factors determined by skin tests may be foods, epidermals, house-dust, tobacco, etc. Desensitization with specific

extracts has been highly successful in this type of case.

VERNAL CONJUNCTIVITIS

Conjunctivitis is one of the prominent symptoms of hay fever. It can occur, however, alone, not only during the hay fever season but at any time of the year, due to various sensitizing agents. These must be carefully distinguished from conjunctivitis due to non-allergic causes. The allergic cases are characterized by itching and redness of the eyes and moderate lacrimation. Eosinophils are frequently found in smears from the conjunctival sac. Positive skin tests are difficult to elicit in vernal conjunctivitis. When it occurs during the pollination season, desensitization with pollen mixtures is

effective. In the absence of positive skin tests very excellent results have been obtained in both children and adults with non-specific protein therapy. I have found injections of autoclaved skimmed milk most effective. The majority of cases clear up in from five to ten injections. The initial dose is .2 c.c. increasing .1 c.c. each dose, every other day until 1 c.c. is reached.

The field of allergy broadens rapidly as many other manifestations are discovered. Some cases of epilepsy, most cases of migraine, cases of obscure abdominal pain, and some cases of chronic sinusitis have been solved on this basis. The principles of diagnosis and treatment as outlined above can be applied to the manifestations of allergy as they appear in various other organ-systems. 914 MACCABEES BLDG.

ACTINOMYCOSIS OF THE LIVER

A CASE REPORT

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Mr. C. C. was admitted to the hospital on December 23, 1930. He complained of pain in the abdomen of eighteen hours duration. It had localized over McBurney's point, with fever, nausea and vomiting. The family history was negative and he had never had any serious illness or operation. Examination disclosed a well developed man about 25 years of age. There was marked tenderness and rigidity over the lower right quadrant of the abdomen. No other abnormality was noted. His teeth and gums were in good condition and his throat was negative. White blood cells 11,000. Polymorphonuclears 87 per cent. Small lymphocytes 10 per cent. Urine analysis was negative.

An appendectomy was performed. A sero-purulent discharge appeared on opening the peritoneum. The ileum and cecum were slightly distended and congested.

The pathological report by Dr. James E. Davis was as follows: "Gross—An appendix acutely inflamed and hemorrhagic with an area of perforation in the proximal third. Microscopic diagnosis—Acute, suppurative, hemorrhagic, gangrenous appendicitis, peritonitis, and omentitis."

The convalescence was stormy and characterized by extreme distension which gradually subsided. The wound healed well and he was discharged from the hospital on January 16, 1931.

One month later he had regained his preoperative weight and felt perfectly well. He spent the next two months on a farm doing light work.

On April 3, 1931, he was readmitted to the hospital. He now complained of severe pain in the back and upper right quadrant of the abdomen. Temperature 101° F. Pulse 100. White blood count 15,000. Examination of the chest negative. Urine analysis normal.

During the following week the pain localized in the region of the right kidney. A distinct swelling could now be observed just below the ribs in the right vertebro-costal angle.

An incision was made in the right flank and a large abscess found between the right lobe of the liver and the diaphragm. The pus was light yellow in color and had a very bad odor. A smear was

taken and showed a few white blood cells, but no tubercle bacilli. Drainage tubes were inserted.

No improvement was shown. His temperature would go to 102° F. or 103° F. each afternoon. The wound continued to drain and he gradually lost weight and strength. A number of X-rays were taken which now showed a distinct enlargement of the liver with restriction of movement on the right side of the diaphragm.

On August 4, 1931, the incision in the flank was enlarged, the liver examined and found to contain multiple abscesses. A sinus was found extending retroperitoneally from the liver to the crest of the ilium. The crest was roughened, showing an early osteomyelitis. The abscess cavities were curetted. There was marked bleeding from the cavity walls. The pus and debris were examined by Dr. A. O. Brines who found the typical ray fungus or bacillus of actinomycosis.

The pus had now assumed a bright yellow color. No sulphur granules were seen. His condition gradually became worse, dying on September 11, 1931. No autopsy was obtained.

This case seems to corroborate the theory of J. H. Wright: the bacillus a normal habitat of the intestinal canal; the port of entry a perforated appendix; the contributing cause a lowered resistance, and the lodgment of the organism at or near the dome of the liver, away from some inhibitive factor in the bowel or peritoneum.

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Actinomycosis was first recognized by Langenbeck, in 1845. The first case in this country was reported in 1885 by J. B. Murphy of Chicago. Actinomycosis of the liver is quite rare.

F. A. Collier and G. G. Adie in 1924 reported fifty cases of actinomycosis taken from the records of the Department of Surgery of the University of Michigan. One case was listed as primarily of the liver.

Louis P. Good in 1931 reported sixty-two cases of abdominal actinomycosis taken from the records of the Mayo Clinic. Of this number, two were listed as primary in the gall bladder and appendix.

An infection of this type usually runs a chronic course. It is characterized by the formation of deep seated abscesses and sinus tracts. The surrounding tissue becomes leathery and brawny. The pus is of a light lemon color and contains the characteristic sulphur granules. All tissues are attacked, but the intestinal canal and peritoneum seem

to be especially resistant to invasion. The mortality is between 60 and 70 per cent.

That the incidence is less today than in former years is probably due to the work of the Public Health Service in eliminating or limiting the infection of lumpy jaw in cattle. Some authorities believe it is transmitted in straw, weeds, or hay.

The treatment consists in the incision and drainage of abscesses. The use of potassium or sodium iodide in large and long continued doses. The use of the X-ray is sometimes advised.

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HYPERPARATHYROIDISM*

NATHANIEL GATES, M.D.†

DETROIT, MICHIGAN

Hyperparathyroidism is a definite clinical entity, which was finally established in 1925, when Mandl, of Vienna, deliberately operated for a parathyroid tumor as the primary cause of the syndrome which existed in his patient.

The outstanding features of his case were radiologic evidence of osteitis fibrosa of numerous skeletal structures, complicated by spontaneous fracture of the femur. He explored and found a parathyroid tumor. The removal of the growth was followed by prompt and definite improvement in the clinical picture, and a decrease in the serum calcium present in the blood.

HISTORICAL

MacCallum and Voegtlin, in 1909, clearly demonstrated that postoperative tetany was the result of injury, or removal of the parathyroid glandules in thyroid operations. They believed the lowered calcium content of the tissues and body fluids, especially in the blood, was the cause of the symptoms present. They established their claim to this opinion, by causing the convulsions of tetany to cease by the intravenous injection of calcium salts. Oral and subcutaneous administration of calcium salts had the same effect, although the beneficial action developed much more slowly. They concluded that the function of the parathyroid glands is to regulate the calcium exchange in the body, and considered that all the symptoms following parathyroidectomy are due to calcium deficiency. MacCallum, in 1912, stated that

the galvanic hyperexcitability of the nerves, which is a characteristic feature of tetany, is due to some change induced in the blood by parathyroidectomy.

A number of other investigators continued to inquire into the function of the parathyroid glandules, and finally Salveson, in 1923, stated that the whole symptomatology of parathyroid deficiency is related to a lowered calcium content of the blood. He held that the calcium content of the blood is normally controlled by the parathyroid glands.

J. B. Collip, in 1925, recounted, in the Harvey Lectures, the physiology of the parathyroid glandules, as the result of his experimental investigations, and final isolation of the active hormone which these structures elaborate. He termed the substance para-thormone, and experimentally produced hyper- and hypo-calcemic states in laboratory animals, which he in turn treated by adding or withdrawing calcium as indicated. He carried, to a definite conclusion, the investigation of the function of the para-

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thyroid bodies, and the clinical features present when disturbance in secretion is present.

Van Recklinghausen, in 1904, first described osteitis fibrosa cystica. Askanazy, in

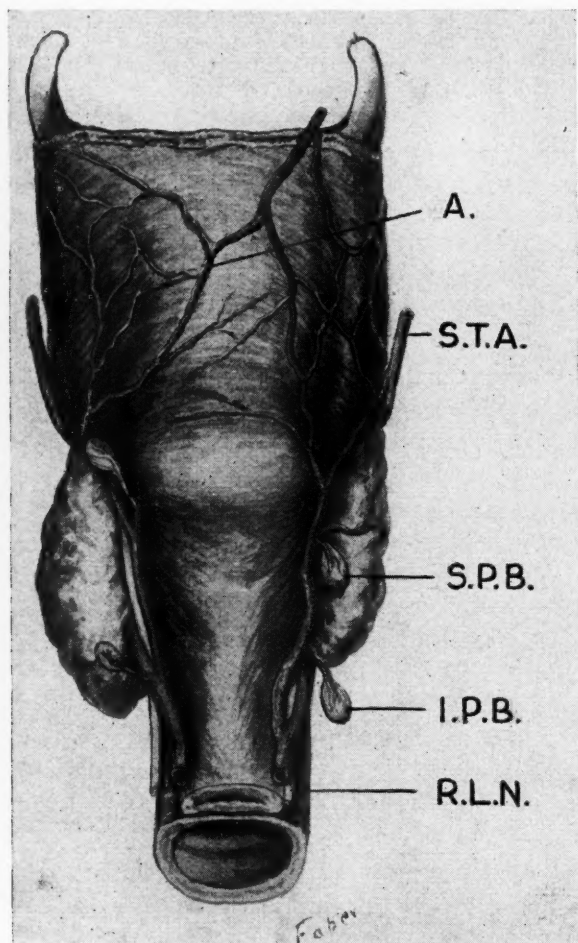


Fig. 1. Posterior view of thyroid gland. Anastomosis between parathyroid bodies on both sides. A., anastomosis in posterior surface of pharynx; S.T.A., superior thyroid artery; S.P.B., superior parathyroid body; I.P.B., inferior parathyroid body; R.L.N., recurrent laryngeal nerve. Reduced one-sixth natural size.

1904, published the first case of parathyroid tumor, found post mortem, in a case of osteitis fibrosa cystica. Erdheim, in 1907, noted the relationship of parathyroid hyperplasia to osteitis fibrosa cystica, and believed it was due to a compensatory effort on the part of the glands to increase calcemia. (Three cases—Erdheim Theory.) DaCosta, in 1909, collected eight cases of parathyroid tumor from the literature, one of them his own. He did not draw attention to any remote relationship of the body to this pathological state. Lloyd, in a review of ten thousand consecutive necropsies, found five parathyroid tumors. Hoffheinz, in 1925, reported forty-five cases of parathyroid tumors, twenty-seven of them related to

disease of the skeleton. Mandl, in 1925, transplanted healthy parathyroid glands into a patient with generalized osteitis fibrosa, but it had no effect on the progressive course of the disease. He then explored the region of the parathyroid glands, and removed a parathyroid adenoma. Following this, the patient spectacularly improved. This led Mandl to believe that in some cases, at least, the parathyroid tumor is primary and the bony changes are secondary. Oppel of Leningrad, up to 1928, had done seventy parathyroidectomies for ankylosing arthritis, and hypertrophic metastatic calcium deposits in and about the spinal and other large joints in the body. Up to August, 1930, nine cases have been reported which correspond to a syndrome described as hyperparathyroidism. (Barr, Bulger and Dixon.) In five of the nine cases, operations were performed and tumors were removed. In one of the nine cases, two apparently normal, but undoubtedly hyperfunctioning parathyroid glands were removed. Three patients were not operated on, and there is no proof of the presence of a tumor, but many of the clinical features were present. Ballin and Morse report their observations upon fifteen parathyroidectomies. Six patients had general demineralization of the skeleton with demineralized foci in the vertebræ and other bones. Seven had a combination of demineralization of the spine, leading to a kyphosis, with stiffening or ankylosing arthritic joints.

One of the most remarkable cases is that reported by Pemberton and Geddie in 1930. A girl, fourteen years of age, complained of spells of vomiting, pallor and loss of weight. The history was sixteen months duration, with the loss of twenty-nine pounds. She had polydipsia and polyuria, with nocturia three to five times each night for the preceding year. She drank about two quarts of water each night. On examination the patient was pale, emaciated and appeared to be chronically ill. The electrical irritability was decreased. Her vomiting was not related to food, recurring about every two weeks and lasting from one to five days. Roentgenograms of all the bones gave evidence of diffuse decalcification. A study of three days of calcium and phosphorus in the urine and stool revealed a slightly positive phosphorus balance and a slightly negative calcium balance.

VARIATIONS IN BLOOD SERUM CALCIUM AND PHOSPHORUS

(Case of Pemberton and Geddie)

	Calcium mg. in each 100 c.c.	Phosphorus mg. in each 100 c.c.
Before operation	16.32	2.46
	17.67	2.80
After operation	7.89	2.2
	7.74	3.41

Operation: Diagnosis of parathyroid tumor was made, although no tumor could be felt in the neck. At operation, November 16, 1929, a parathyroid tumor was found behind the left lobe of the thyroid gland, at the inferior pole, and outside of the capsule.

The effect of the operation was remarkable. Moderate tetany developed, for which calcium chloride, cod liver oil and viosterol were administered daily. This is the youngest patient reported to prove the clinical syndrome known as hyperparathyroidism. The symptoms in this case were related to the intestinal and genito-urinary systems, although X-ray evidence of diffuse decalcification of all the bones was revealed. It is interesting to speculate in this case, if an early diagnosis had not been made, whether osteitis fibrosa would have developed.

CALCIUM AND PHOSPHORUS CONTENT OF BLOOD

The normal blood-serum calcium varies between 9.0 and 11.0 mg. per 100 c.c. The most obvious function of calcium in the body is the formation of bone. Donald Hunter has well stated it when he said, "The skeleton of the mammal is not only a supporting structure, but it is also a reservoir of calcium and phosphorus. Bone salts are continuously removed and renewed, and the skeleton is often drawn upon when there is a deficiency of calcium, either as the result of a dietetic error or organic disease."

Calcium is extremely important in the blood and tissues, because it establishes a balance which determines the degree of irritability of muscle and nerve. However, wide variations from the normal can temporarily exist without apparent interference with vital function. Symptomless hypercalcemia can temporarily exist in cases of parathyroid over-dosage, and in spontaneous hyperparathyroidism, where the serum calcium may reach from 16 to 19 mg. per 100 c.c. Inorganic phosphorus in the blood varies between 2.5 and 3.5 mg. per 100 c.c. In children, where bone growth is more active, it may reach as high as 5 mg. per 100 c.c. The function of phosphorus is essential to the deposition of bone. It is closely related to calcium function in laying down the bone salts or growth.

It is very important to bear in mind the function of the calcium and phosphorus, and their normal occurrence in blood-serum, and excretion in the urine. It is in the con-

dition under consideration (hyperparathyroidism) that a very remarkable clinical picture exists, the result of an increase in the calcium content in the blood, with concomitant reduction in the inorganic phosphorus content.

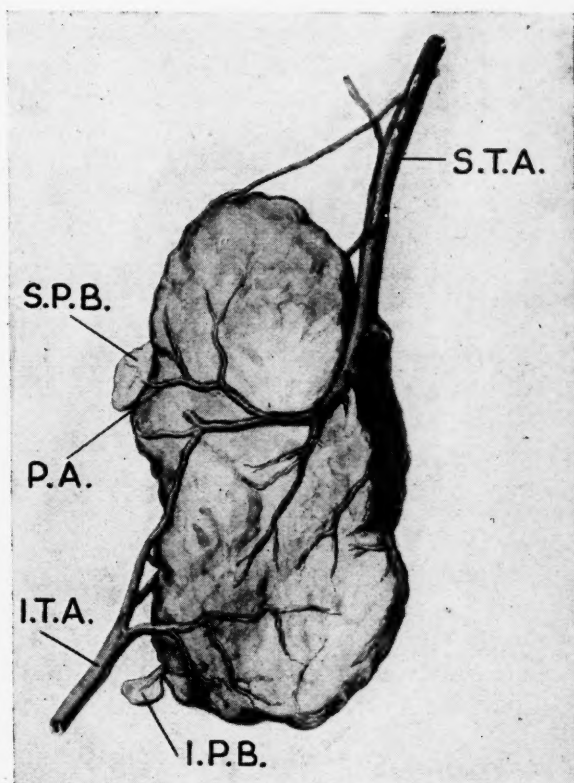


Fig. 2. Left thyroid lobe viewed from behind. Shows unusual position and blood supply of superior parathyroid body, rendering body likely of removal in lobectomy. S.T.A., superior thyroid artery; S.P.B., superior parathyroid body; P.A., parathyroid artery; I.T.A., inferior thyroid artery; I.P.B., inferior parathyroid body. Reduced one-sixth natural size.

SYMPTOMS

The definite train of symptoms of hyperparathyroidism, which suggests hyperfunctioning of the parathyroid glands, is expressed by the following: (1) High concentration of serum calcium (from 10 to 14 mg. per 100 c.c.); (2) low concentration of serum phosphorus (from 1 to 3 mg. per 100 c.c.); (3) abnormal excretion of calcium in the urine; (4) rarefaction of bones (mild and marked demineralization), occurrence of multiple cysts and tumors of bones; (5) hypotonia and muscular weakness (Pemberton and Geddie); (6) polyuria and polydipsia; (7) severe abdominal pain; (8) moderate or marked deformity, including forward curvature of the spine, bowing of the thighs, and deformities due to localized cyst formation in the bones.

In hypoparathyroidism, a condition termed

tetany, the clinical features are quite unmistakable to the examiner. There is hyper-irritability of the nervous system with convulsive seizures, and carpopedal spasm; Trousseau and Chvostek signs are present. The blood calcium and blood phosphorus are

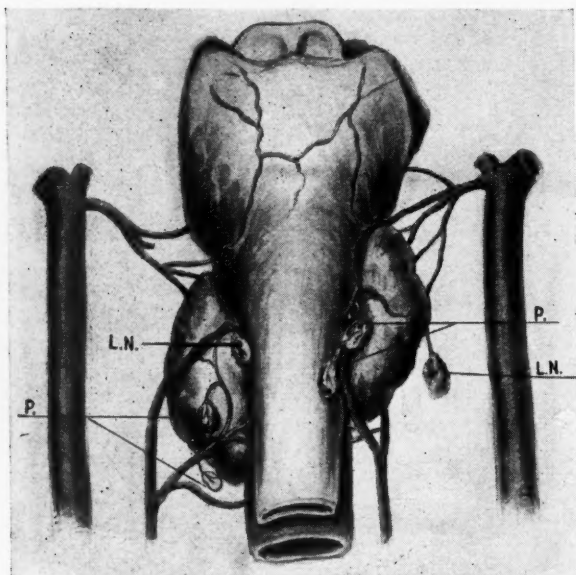


Fig. 3. Posterior view. P., parathyroid glands; L.N., lymph nodes. Note particularly the close anatomical relationship of the lymph nodes to the thyroid gland and vessels from which the parathyroids spring.

each respectively reduced and increased, in conformity with the findings in this condition.

The brevity of this paper does not permit an extended discussion of the biochemical features, which relate to the functioning of the parathyroid glands in health and disease. Reference to the Goulstonian Lectures, by Donald Hunter, before the Royal College of Physicians of London, and The Harvey Lectures, by J. B. Collip, before The Harvey Society in New York, will familiarize the reader with the data relating to this subject.

I desire, at this point, to draw your attention to the clinical features of a case of hyperparathyroidism which came under my observation during the past year.

A woman, fifty-nine years of age, born in Hungary, has lived in United States for thirty years. Has five adult children. One child died in infancy of pneumonia. Medical history of her ancestors is negative, with relation to her present condition. In July, 1930, she complained of "rheumatism" which had been present for three years. There was an eruption on both sides of the face, in front and back of the ears, which was characteristic of lupus, and which was being treated by radiation. She complained of pain in her knees, ankle-joints, hands and

fingers, for which she has occasionally spent a day or two in bed. There is some forward curvature of the spine. She complained of no other difficulty, and had been fairly active up to this time. The important features of her examination, with direct relation to the discussion of hyperparathyroidism, were generalized arthritis involving all the joints of the upper and lower extremities with osteoarthritic changes of the wrists and fingers, causing slight flexion of the interphalangeal joints of the hands, with characteristic lateral deviation. The knee joints were freely movable, with some crepitus. The movements of the spine were very limited, the patient assuming almost a fixed posture when sitting upright. Vaginal-abdominal examination was negative. In the upright position, she exhibited a swelling of the feet and legs, with varicosities in the left leg. The arches were very low.

At this time the patient was placed upon dietetic treatment, as indicated by Pemberton, Osgood and others for arthritis. Thyroid extract, one-grain tablet twice daily, warm bath, body massage and rest, with careful attention to the intestinal tract, constituted a part of the regimen of treatment. The lupus was improved by therapeutic X-ray treatment; but otherwise the patient showed no improvement in her skeletal disease.

On April 1, 1931, she was admitted into the Woman's Hospital, where she remained for seventeen days. At this time, there was a distinct bilateral facial lesion (lupus), accompanied with considerable edema of both ear lobes. There was paroxysmal vomiting, unrelated to food, associated with severe, persistent, burning abdominal pain, which had existed for the past three weeks. For several weeks, the patient noted marked increased frequency of urination, day and night, passing large quantities of urine. This latter symptom was accompanied by extreme thirst, and shortness of breath upon exertion, severe paroxysmal pain in both legs, more marked in the left leg, with swelling of the ankles and feet.

The urine examination disclosed a faint trace of albumin; otherwise it was negative.

The blood examination disclosed a moderate anemia; otherwise negative.

The blood chemistry examination indicates calcium 10.4 mg. per 100 c.c. serum. Phosphorus 6.25 mg. per 100 c.c. plasma. This phosphorus is a little high, but the calcium is definitely within the range of normal. The physical weakness was more pronounced, and the patient was apathetic to a marked degree. Physical examination was negative with reference to the eyes, thyroid gland, oral cavity, thorax and abdomen. No intra-abdominal lesion could be found to account for the severe pain of which she complained. Blood pressure 120/80. X-ray examination, made by Dr. Shore, disclosed definite demineralization of the vertebral bodies, the 11th thoracic being reduced to about one-half of the normal thickness, giving the appearance of a compression fracture of this spinal unit. This finding is quite common in the radiologic study of subjects of this disease. A vertebral body is often so demineralized as to show partial collapse of its thickness. There is coincident thinning out of the cortical structure of many or all of the spinal units. The absorption of calcium in this case was also present in the carpal and phalangeal bones of both hands, with associated arthritic changes in the interphalangeal joints.

The patient remained in the hospital for seventeen days, and received an intravenous injection of five per cent calcium lactate solution (Lilly & Co.), which did not affect the course of the disease, and in view of the hypercalcemia, which clinically was undoubtedly present, was not indicated. She succumbed to

her disease six weeks after being discharged from the hospital, the terminal state being one of physical weakness, profound mental apathy, and cardio-vascular breakdown. The abdominal pain was persistent, and remained unrelieved throughout her illness. Unfortunately no autopsy was done.

The evidence in this case pointed to hyperparathyroidism, and surgical exploration of the parathyroid region was justifiable. It was not done, because the writer was misled by the studies in the blood serum calcium and phosphorus.

SURGICAL TREATMENT

Since Sandstrom, in 1880, and, at a later date, Gley, Walsh and Kohn, determined the existence of the parathyroid bodies, their location and blood supply have been definitely established. The writer, in 1908, carefully investigated the number, position and circulation of the parathyroid bodies, and proved that four invariably exist, in an almost constant relationship to the dorsal-lateral surfaces of the thyroid lobes. The upper invariably hangs from an anastomotic channel, between a large branch of the inferior thyroid artery, which passes up the dorsal-lateral surface of the lobe, to anastomose with a main superior thyroid branch. The lower glandule is in closer relationship to the inferior pole of the thyroid gland, and always hangs from a branch of the inferior thyroid trunk. The glandule, as a rule, lies within a thin capsule, and may be so closely related to the thyroid capsule as to appear to be intra-glandular in its location. Their identification in the anatomical laboratory is not always an easy matter, and in the living subject there will be some difficulty in definitely isolating and recognizing a normal parathyroid gland. When an adenoma or a neoplastic growth is present, the site of the tumor (parathyroid glandule) is usually indicated by a nodule, often the size of a hazelnut, sometimes larger, which directs the operator to the site of the parathyroid tumor. This has been the case in a number of operative instances. Therefore, careful attention must be given, in searching for the parathyroid glandules, to injury of the recurrent laryngeal nerve, since prolonged traction upon the thyroid lobe, with manipulation at the inferior pole, may subject the motor laryngeal nerves to traumatic

injury, which may prove of serious consequence. Following the operation, severe pressure from a hematoma, causing impairment of breathing, from involvement of the motor nerves, has been reported, due to inadequate control of the blood supply of the gland.

When parathyroid operations are conducted, as they should always be, under local anesthesia, supplemented with nitrous oxide, the patient can be quickly brought from the twilight zone of sleep to sufficient wakefulness, to exercise his voice and indicate injury to the recurrent laryngeal nerves.

Following an operation to remove a parathyroid tumor, because of hypercalcemic symptoms, it is not to be expected that all bone changes will quickly or permanently disappear. Prolonged hyperparathyroidism may produce organic damage, analogous to that which results from hyperthyroidism of long duration (exophthalmic goiter).

Removal of the offending cause will definitely retard the progress of the disease, and cause almost an immediate disappearance of the abdominal pain and vomiting, and may be followed by a startling recovery in the clinical picture, such as is reported by Pemberton and Geddie in their case.

Marked postural deformity can hardly be improved by removing a parathyroid tumor, especially after metastatic calcium deposits of the spine and other large joints has taken place.

It is the belief of the writer that the clear-cut picture of this interesting syndrome will attract attention to many obscure bone and joint conditions, which have been overlooked, and about which more medical clarity can be determined.

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FAMOUS MEN IN MEDICAL HISTORY

AUSTIN FLINT*

FRANCIS J. HERINGHAUS

In tracing the history of physical diagnosis there stand out pre-eminently in the 18th century the names of Auenbrugger in Vienna, the first to recognize the value of percussion, and Laennec in Paris, inventor of the stethoscope; in the 19th century on the continent there appear the names of Louis in Paris, a disciple of Laennec; Skoda and Rokitansky in Bohemia; and Stokes in England. Foremost among the names of Americans in this category stands that of Austin Flint, Sr., teacher, writer, clinician and father; undoubtedly the most outstanding figure in the field of clinical medicine in America previous to Sir William Osler.

At the time of his birth in 1812 physical diagnosis was in its infancy. The art of percussion had but recently been introduced. When he was seven years old Laennec invented the stethoscope, that omnipresent instrument in the pocket of every would-be clinician and the inspiration for a poem by Oliver Wendell Holmes entitled "The Stethoscope Song," a professional ballad. But before his death in 1886 and due in no small measure to his own contributions and energies he was to see the art and science of percussion and auscultation elevated to the high rank they now enjoy among the practitioners of medicine in every land.

Austin Flint, according to the statement of Jacobi, one of his distinguished successors, was singularly fortunate both in regard to his birth, his life and his sudden and painless death. He came of a long line of New England Puritans; the first Flint, one Thomas, having emigrated from Derbyshire, England and settled in Concord, Mass., in 1638. His great grandfather, grandfather and father were all physicians in Massachusetts. Thus, he was a descendant of one of the oldest families in America and one which by their culture and labors can rightfully lay claim as belonging to genuine American Aristocracy.

Of his early life little has been recorded from his birth at Petersham, Mass., in 1812,

until the time of his entrance to Amherst College, where he received a liberal education. Later he entered Harvard University and Harvard Medical School, from which he was graduated in 1833, having had for his teachers such men as James Jackson, Sr., John C. Warren, and Jacob Bigelow. For the first three years following his graduation he practiced medicine in Boston and Northampton.

In 1836 he moved to Buffalo, New York, and made this place his residence for the next sixteen years with a few exceptions. His zeal and thorough methods won for him immediately something of reputation, with the result that eight years later he was called to Chicago to become Professor of Clinical Medicine in Rush Medical College, a position which he held for only a year, returning in 1845 to Buffalo. From the very first years of his residence in Buffalo, he became interested not only in practicing medicine but in researches along numerous lines, the first of which was in the subject of marsh miasms. In 1841 he published in the American Journal of the Medical Sciences an article concerning the treatment of intermittent fever with quinine alone and not with mercurials as had previously been done. He was young and not well known but he published with this article a list of statistics which substantiated his contentions and this caused his article to attract wide attention. The thoroughness and careful observations which he employed in these early investigations became a characteristic of all his subsequent endeavors and herein lies the secret of much of his later success. From this time throughout all his life he was a contributor to the current medical periodicals.

In 1846 he established the Buffalo Medical Journal and remained as its editor for the next ten years, a periodical which gained a wide reputation in its time and which has at the present time been absorbed by the Medical Review of Reviews.

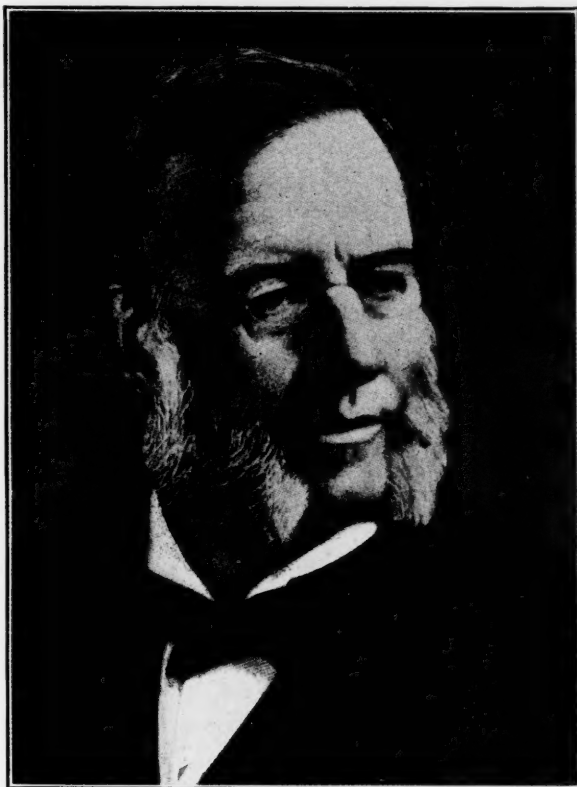
Dr. Flint by this time had become a prominent figure among the medical pro-

*Read before the Victor Vaughan Society of the University of Michigan Medical School on April 22, 1931.

fession in Buffalo and throughout New England and Canada, where his Buffalo Medical Journal enjoyed a wide circulation. In the following year, 1847, in association with Frank H. Hamilton and James P. White, he organized the Buffalo Medical College and became its first Professor of the Theory and Practice of Medicine, a position which he held until his departure from the city in 1852. The task of organizing a new medical school is obviously not an easy one and this was no exception. Some of the difficulties he had to encounter were in the form of hostility to the new school on the part of some of the prominent visiting staff of the hospital, but Flint had gathered together a strong faculty and completely ignored the unfriendly attitude of the dissenters. The interest which Dr. Flint manifested in his work at this time is well shown by the following quotation from an article by one of his students: "At this time, 1851, he read his lectures and they were listened to with interest and always by the entire class. No one more fully appreciated hospital advantages as offering the opportunity for medical improvement than he at this time, and indeed throughout his whole life. He had previously made use to the best advantage of the clinical opportunities which the old almshouse afforded, and now he had the privilege of studying diseases among a better class of patients and with better surroundings. During my stay in the hospital every case in the service of Prof. Flint that possessed any interest was recorded in his note book and his thorough examination of patients, in order that the notes might be complete, necessitated a prolonged stay on his part at each visit to the hospital. The late Professor Bennett of Edinburgh said that a large metropolitan practice is the bane of the profession since it prevents the proper examination of cases and the investigation of subjects which are of interest to the profession. Prof. Flint appeared to have the same belief for he seemed annoyed and disappointed when professional engagements in the city prevented his daily visit to the hospital or compelled a shortening of his stay there."

During the time of his professorship in the medical school in Buffalo, Dr. Flint made one of his most outstanding contributions to the advancement of physical diagnosis in the form of an essay entitled,

"Variations in Pitch, in Percussion and Respiratory Sounds," an essay which won the prize of the American Medical Association for the best original contribution in 1852. The keynote of this essay was the insistence of its author upon the importance



AUSTIN FLINT, SR.

of pitch. The following is a quotation from this essay and states the law upon which Dr. Flint applied this principle to percussion: "An elevation of pitch always accompanies diminution of resonance in consequence of pulmonary consolidation. In other words, dullness of resonance is never present without the pitch being raised."

Dr. Flint was one of the first to notice the increased resistance to percussion over pleural effusions. He described spontaneous pneumothorax more lucidly than Laennec. In relation to auscultatory signs he pointed out that the prolonged expiratory sound of Jackson was inconclusive evidence of incipient tuberculosis unless attended by an elevation in pitch. Furthermore he carefully analyzed the component phases and types of normal breath sounds.

While he was yet in Buffalo, Dr. Flint

was sent to New York City as a delegate from the Buffalo Medical Association to the meeting of the National Medical Convention in 1846 and was subsequently appointed on a committee to report on a resolution by Dr. Isaac Hayes for a uniform and elevated standard of requirements for the degree of M.D. in all the medical schools of United States. This committee submitted its report in Philadelphia in 1847 and at this meeting the name of the organization was changed from the National Medical Convention to the American Medical Association. This report consisted of ten resolutions which are in substance as follows: (1) That it be recommended to all the colleges to extend the period employed in lecturing from four to six months. (2) That candidates for the degree of M.D. shall have attended two full courses of lectures before graduation. (3) That three years be devoted to the study of medicine. (4) That a certificate of pupilage should not be accepted. (5) That the number of professors in medical schools be increased to seven. (6) That candidates shall have devoted at least three months to dissections. (7) That preceptors should avail themselves of every opportunity to impart clinical instruction to their pupils.

Dr. Flint throughout his life was interested in improving the standard of medical education and although all of the ten resolutions embodied in his report were not carried out before his death he kept continually writing and working for that cause.

In 1852 Dr. Flint again decided to move; this time to Louisville. It has been stated that few successful practitioners have moved so frequently but everywhere he went he was able to make his presence felt by his true worth. The one exception to this statement seems to be found in his capacity as Professor of Theory and Practice of Medicine in the University of Louisville, from which position he was removed in 1856, according to Charles Caldwell, "not on account of incapacity but on account of a want of sufficient exertion and self-training."

From Louisville he moved back to Buffalo and took the chair of Pathology and Clinical Medicine in the school he helped to found. This time he stayed for only two years and in 1858 went to New Orleans as Clinical Professor of Medicine in the Med-

ical School there and as visiting physician to the Charity Hospital. He continued in this capacity for the next three winters, returning to Buffalo during the warmer seasons of the year; and finally in 1860 took up a permanent residence in New York City which he maintained throughout the rest of his days.

During this period characterized by his frequent migrations from the extreme north to the southern part of the country he was ever active as a writer and investigator in addition to his extensive practice as a private clinician. During this time he published articles on diabetes; the pathology of typhoid fever; the epidemic of cholera in Buffalo; on serous effusions into the arachnoid cavity; on pleuropneumonitis complicated with pericarditis; and several other topics. In 1856 he published his book entitled, "Physical Exploration of the Chest and the Diagnosis of Diseases Affecting the Respiratory Organs." In 1859 he published his practical treatise on the "Diagnosis, Pathology and Treatment of Diseases of the Heart," and also "Clinical Study of the Heart Sounds in Health and Disease," which essay again won the prize of the American Medical Association for that year. These last mentioned works were written in the usual clear, concise manner and were the results of long clinical observations. The chapters describing the heart sounds both in the normal and diseased heart are classical and might well be used today as authorities on the subject. Although Dr. Flint was strongly opposed to the use of proper names in designating physical signs, the term "Flint murmur" is in common use today to designate the mitral direct murmur which he first described at this time. His description of the murmur is as follows: "In some cases in which free aortic regurgitation exists, the left ventricle becoming filled before the auricles contract, the mitral curtains are floated out, and the valves closed when the mitral current takes place, and under these circumstances this murmur may be produced by the current just named, although no mitral lesion exists."

With the taking of a new residence in New York City one might say there opened a new chapter in the life of Austin Flint. Although his work was carried on in the same fields, yet he ceased his wanderings which characterized his life thus far and

Caldwell referred to Joshua Barker Flint (1801-1864), first professor of surgery, Louisville Medical Institute. See Kentucky Med. J. 34: 488-96, 1936. Austin Flint left Louisville in 1856. Caldwell died in 1853.

this fact seemed to lend a decided impetus to his activities. In greater New York he found ample material and opportunities with which to carry on his investigations and still enjoy a large practice as a practitioner of medicine. As ever before he continued to labor incessantly with problems in physical diagnosis and carried on to popularize and perfect this phase of medicine.

Shortly after he had established himself in New York he was appointed as Professor of Pathology and Practical Medicine at the Long Island College Hospital and at the same time became one of the physicians to the Bellevue Hospital and Professor of the Principles and Practice of Medicine in the Bellevue Hospital Medical College. He held these two positions until 1868, when the burden of his many duties forced him to discontinue his connections at the Long Island institution. However, he continued in his capacity as Professor of Medicine at Bellevue until his death in 1886 and was in a large measure responsible for the success and popularity which this school enjoyed during that time. It was in this capacity as Professor of Medicine at Bellevue that he attained his highest achievements and received the highest distinction as physician and teacher. Five years after taking up this new work he published his textbook entitled "A Treatise on the Principles and Practice of Medicine," a work that was recognized as the finest authority on the subject at that time. The book immediately became widely popular among students and practitioners throughout the country and in consequence of this great demand Dr. Flint revised the volume six times and was in the process of preparing a seventh edition at the time of his death. It is said the book sold to the extent of forty thousand copies. Dr. Flint dedicated the first edition of this work to some of his former teachers as follows: "To the Memory of James Jackson, John Ware, and Jacob Bigelow, the spirit of whose oral instructions received during his pupilage, the author has endeavored to follow throughout life as student, teacher, writer and practitioner, this volume is gratefully enscribed." The book contained an introductory chapter dealing with methods of examining patients, symptomatology, a description of the various characteristic facies, differences in pulse and temperature and a small discussion concerning the professional

conduct of physicians, a subject which greatly concerned the author and one to which he devoted considerable time and writing. The body of the book embraced the whole field of medicine. The diseases were divided into general and local and the latter divided again into classes corresponding to the different physiological system—namely, respiratory, circulatory, digestive, urinary, and nervous—and under each class were grouped the diseases whose diagnosis necessitated a differentiation from each other. In the first edition the author gave most space to diseases of the nervous system because clinical and pathological research had recently made great advances toward the recognition and understanding of diseases in this field. An idea can be gotten of the rapidity with which new ideas and discoveries were replacing ancient and incorrect ones at this time by the frequent revisions of this text. In 1881, with the assistance of Dr. William H. Welch, the fifth edition was published and the preface contains the following claim: "That the eliminations, substitutions and additions rendered it essentially a new work." Two years later an appendix to the fifth edition was published so that the public could know about the remarkable discoveries and researches of Koch and others concerning the bacillus of tuberculosis. In 1886, three years later, the sixth edition was published. Like the preceding one, it was prepared with the help of Dr. Welch, whose knowledge of pathology greatly added to the value of the book.

In addition to his many duties and interests as professor of clinical medicine Dr. Flint had many others. He had an extensive practice as a consultant and was in great demand by his fellow practitioners, who recognized his fine judgment and keen ability as a diagnostician. One of his contemporaries later wrote concerning his qualifications as a consultant as follows:

"I can think of no one whom I have met who was more studious of the manner in which he treated a fellow member. There was no snubbing method which is at times adopted, and there was that present which is sometimes wanting, and which made one wish that others might have taken a lesson from him. There was always that careful consideration of what he might say and what influence it might have in the judgment which bystanders might form of the given individual, and, reasoning from this, he was careful of his criticisms of others in the sickroom. It was this, together with his buoyant disposition, with his hopeful aspect and an absence of that funereal method and manner

which some have, which made him so favored as a consultant, and which made his visit to the sick-room not a thing of gloom but a ray of sunshine."

The great enthusiasm with which Professor Flint studied his cases of disease made him extremely popular among his students, and this is as true of his later years of teaching as of his years at Buffalo and New Orleans and Chicago. Likewise it was this characteristic which enabled him to keep abreast of the times and in many instances to forge ahead of the times, as it were.

The respect and esteem with which his fellow practitioners regarded Professor Flint was shown by his selection as orator of the New York Academy of Medicine in 1868, his election to the vice-presidency in 1872, and in the following year by his selection as president of the Academy. His predecessor, Edmund Peaslie, made the following assertion to the newly elected Professor Flint: "We have always found you the high-minded and sympathetic man and the genial gentleman as well as the finished scholar, the distinguished author and the skilful practitioner." It is recorded that during the two years of his presidency the Academy prospered and that the papers read by the various members were of unusual quality. Doctor Flint himself contributed to the scientific work of the Academy by giving several papers of fine quality, among which were: "The management of pulmonary tuberculosis with special reference to the employment of alcoholic stimulants," "Discussions on the etiology and pathology of Bright's disease," and "Discussion on Doctor Loomis' paper on typhus fever." This latter topic was one which had interested him in his early days at Buffalo when he had very brilliantly made a differentiation between cases of typhus and typhoid fever and had recognized and described a few cases not belonging to either the typhoid or typhus group and which later were proven to be relapsing fever.

At the expiration of his term of presidency his reputation as a practitioner and teacher of medicine kept steadily mounting, with the result that he was sent as a delegate to the International Medical Congress in 1881, which met in London, and there read a paper entitled "The Analytical Study of Auscultation and Percussion with Reference to the Distinctive Characteristics of the Pulmonary Signs." This paper attracted so

much attention and seemed so suggestive and valuable that a committee was appointed at the suggestion of the brilliant Mahomed to report on a uniform nomenclature of auscultatory sounds in the diagnosis of disease of the chest. Doctor Flint was made chairman of this committee and its report was made at the next meeting of the Congress at Copenhagen in 1884. At this same meeting in 1881 Doctor Flint was made an honorary vice president of the International Congress. At the meeting in Copenhagen Doctor Flint was elected president of the International Medical Congress, which was to meet again in Washington in 1887, but death intervened.

In 1883, at the meeting of the American Medical Association in Cleveland, Ohio, Doctor Flint was elected president for the following year, although it is stated he neither sought nor desired the office. In this capacity the following year in Washington he delivered a masterly address before the assembled members of the association. It was given just thirty-eight years after the meeting of the National Medical Convention, the precursor of the American Medical Association which met in New York in 1846 and to which Doctor Flint was an original delegate, and opened with the following words:

"The American Medical Association has reached an age when the thoughts of one whose retrospections extend to its birth naturally revert to the natal period of its existence. Of those who coöperated in the formation of the Association and the motives which led to its formation, not many now remain, and after a few more annual meetings all will have passed away."

He then enumerated the objects of the Association and the motives which led to its formation. It will be remembered that he was made a member of a committee at the first meeting to make suggestions for raising the standard of medical education in the United States and that his committee replied in the form of ten well worded resolutions. At this meeting 38 years later Doctor Flint again spoke on the subject of medical education and raised the question of what the Association can do to more and more promote the standards of medical education. He stated that this could not be done by decrying the status of the profession in this country as unworthy of commendation and as contemptible as contrasted with the educational advantages of other countries. He

is quoted as saying "as a body the members of our profession in this country are neither ignorant nor in any respect unworthy. The profession is honorable and honored. In no other country is the social status of its members higher."

At the first meeting of the American Medical Association, in 1847, a code of ethics was adopted by unanimous vote of all present. It was specified at this time that any local medical society not adopting this code could not be recognized as being a member of the American Medical Association. All went well until 1882, when the New York Medical Society by a vote of 52 out of 70 decided to adopt a new code of ethics not in accordance with that of the American Medical Association. Doctor Flint was a member of this society and was one of those voting against the new code. This action was greatly resented by Doctor Flint, as it automatically barred the New York Society from further membership in the A. M. A. As a consequence Doctor Flint resigned from the New York Medical Society and in the following year was instrumental in organizing two other local medical societies, namely, the New York County Medical Association and the New York State Medical Association, and from this time until his death he was an active member of both societies, contributing several papers and in general taking a lively interest in their welfare.

Doctor Flint was an earnest and wholehearted advocate of the code of ethics as adopted by the American Medical Association at its first meeting and did everything in his power to uphold the code and to keep it from being altered or abolished. The section of the code which caused most of the dissension was the one concerning consultations. The code specified that a practitioner of medicine should not call into consultation anyone not of the regular profession, assuming that all others were not properly qualified to act as consultants. In his presidential address of 1884 Doctor Flint voiced his views on the code, which reads, "But no one can be considered as a regular practitioner or a fit associate in consultation whose practice is based on an exclusive dogma, to the rejection of the accumulated experience of the profession and of the aids actually furnished by anatomy, physiology, pathology and organic chemistry." Dr.

Flint contended that members of the homeopathic, eclectic, botanic, etc., schools could not qualify as regular practitioners because they rejected the accumulated experience of the medical profession and the aids furnished by anatomy, physiology, pathology and organic chemistry. The opinions of Dr. Flint upon the code question were published in the New York Medical Journal at the time when the medical profession was taking sides in the matter. His arguments for maintaining the code unchanged were very convincing and forceful and undoubtedly exerted strong influence in the settlement of the matter. It was shortly after this time that Dr. Flint, as president-elect of the International Medical Congress, was going forward with preparations for the next meeting in 1887. Although the profession was somewhat disrupted over the code question, Dr. Flint went ahead as if there were no code question at all, eager and anxious to keep medico-political influences out of the organization of the Congress. It is stated by Dr. Jacobi that the demoralization and disruption of the profession over the code question caused Professor Flint the greatest possible pain and occasioned many of the unhappiest days of his life.

Along with the great honor bestowed upon Dr. Flint as president of the International Medical Congress there came another in 1885 in the form of an invitation to deliver the address on medicine at the next meeting of the British Medical Association, an honor never before bestowed upon an American. But, as in the case of the former, death prevented his appearance in England. The high esteem with which Professor Flint was held throughout England is shown by an article in the British *Lancet* lamenting the fact that the narrow restrictions upon medical practice in the United Kingdom virtually shut out such men as Austin Flint and Trousseau.

The sudden death of Austin Flint by cerebral apoplexy seemed to come as a fulfillment of a wish made earlier in life in which he dreaded a slow and lingering death. The end came on March 13, 1886, just a few days before the annual graduation ceremonies of Bellevue Medical College. The occasion, ordinarily one of great celebration, was appropriately turned into a memorial service for the beloved and respected teacher. The funeral service was

held at Christ Church on March 16, and was attended by a vast gathering of physicians and friends who came to pay a last tribute to their friend and associate. Interment was subsequently made in Boston.

At the time of his death Professor Flint was in full possession of his splendid powers and was fully occupied with his hospital, college, consulting and literary work up to the very last. The night before his death he attended a medical meeting which lasted until midnight, and the cerebral attack occurred shortly after he was taken home. He had no family except a wife, whom he married in 1835, and a son, Dr. Austin Flint, Jr., born in 1836, who attained considerable distinction as a professor of physiology. As an item of passing interest I might mention that a colored servant of Austin Flint, Jr., was in full possession of a classical Austin Flint murmur.

Physically Dr. Flint was of a lofty stature, had a powerful and symmetrical body, a large brain, brilliant, clear, dark hazel eyes, regular features, a very cheerful expression, was quick in motion, had well preserved and harmoniously working organs. He was a systematic, diligent student, a steady professional worker, fond of proper recreation, punctual in his engagements, self-sacrificing, a wise counsellor to the rich and a true friend to the worthy poor. In his home Dr. Flint was the considerate, indulgent and kind husband and father. Mrs. Flint contributed much by her talents and affection to cheer and assist him. She was his constant companion throughout his many trips at home and abroad and was indeed made happy when a permanent residence was established in New York on Fifth Avenue.

In the history of American Medicine Dr. Flint will always be remembered as the eminent clinician as well as the brilliant teacher and writer. Probably his most valuable contributions have been those relating to the use of auscultation and percussion, and, in general, to the disease of the respiratory tract and heart. As has been stated, he was the first to point out the importance of pitch in percussion. He was the first to use the terms and to describe clearly vesiculo-tympanic resonance and broncho-vesicular respiration. He was the first to point out the value of the sounds produced by the whispered voice. He did more

by his teachings and writings than anyone else in this country to render popular the methods of exploration by physical signs.

He contributed much to the natural history of disease and placed upon a firm foundation the doctrine of the self-limitation of many diseases. It is conceded by many that he was the first to recognize the relationship of achylia gastrica and pernicious anemia. He was a profound admirer of the French clinician, Louis, and was an ardent advocate of the method of analytical study of clinical cases, although he did not by any means limit himself to this method. An important and valuable feature in his method of teaching was to require students to make an independent, thorough and systematic study of cases of disease and to furnish full clinical reports of these cases, a method enjoying not a little bit of popularity today. This was done in order to teach a proper method of clinical examination, to inculcate the habit of keeping clinical records and to improve the powers of observation for, as Dr. Flint has said, "The ability to observe correctly is not a natural gift, nor does it accompany, as a matter of course, the acquisition of knowledge from reading or didactic lectures. It is an art to be acquired." Professor Flint was truly a master of this art and became so largely through his lifelong practice of taking careful notes on every case and allowing ample time to pure observation.

In his writings Dr. Flint covered subjects in all departments of internal medicine. In addition to his monumental work upon "The Theory and Practice of Medicine" he published a large number of valuable monographs, among which may be mentioned those on continued fever, dysentery, diseases of the respiratory organs, diseases of the heart, phthisis, physical diagnosis, clinical medicine, and conservative medicine. He lived during the period of the infancy of the germ theory of disease and was quick to recognize its sound principles and value. He predicted that in the future the etiologic agents of many diseases, then unknown, would be brought to light on the basis of this new theory.

The true greatness of any man can well be measured by his achievements. A few of the more outstanding ones attained by Dr. Flint may be mentioned: Professor of

Medicine in seven ranking medical schools; founder and editor of one medical journal; president of the American Medical Association and of the International Medical Congress; founder of several local medical societies; author of several texts of medicine and a contributor to many medical journals.

Austin Flint was ranked as the ablest clinician of his day. Samuel D. Gross has left to posterity the best tribute to him: "Tall, handsome, and of manly form, with a well modulated voice of great compass, he

is a lecturer at once clear, distinct and inspiring. During his hour in the classroom no student ever falls asleep. He ranks high as a clinical instructor. As a diagnostician in diseases of the chest he has few equals. Nor is this fact at all surprising when we bear in mind the time and the immense labor which from an early period of his professional life he has devoted to their investigation. I know of no one who is so well entitled as Austin Flint, Sr., to be regarded as the American Laennec."

MICHIGAN'S DEPARTMENT OF HEALTH

C. C. SLEMONS, Dr.P.H., M.D.,
Health Commissioner
LANSING, MICHIGAN

THE YEAR'S WORK

Michigan's communicable disease record for 1931, judging from the returns for the first ten months of the year, will show the lowest diphtheria rate in the history of the state, a low incidence of smallpox, fewer deaths from scarlet fever than usual, and an epidemic of poliomyelitis.

The low diphtheria incidence is undoubtedly due in part, at least, to the widespread immunization that has been carried on throughout the state for the past ten years. During 1931, counties with full-time health departments and cities with full-time health officers have been especially active. In many of the other counties, local physicians have immunized thousands of children, with assistance from the Michigan Department of Health in organization of the campaigns.

Smallpox incidence has been low, with 887 cases reported as compared with 2,286 for 1930 and an average of 1,641 per year for the past five years. The bureau of epidemiology has followed the policy of endeavoring to arouse interest in vaccination wherever one or more cases of smallpox have appeared. Health officers and physicians have been notified promptly by bulletins of the appearance of cases in their section of the state, and have been kept in touch

with developments. Health officers have been urged to use every means of publicity available and to secure as many vaccinations as possible. Such campaigns of education have on two occasions included several counties. Newspapers have been a valuable aid in advising people of the existence of smallpox and urging vaccination.

Deaths from scarlet fever totalled 108 for the first ten months of the year as compared with an average of 171 for the last five years, although the number of cases during the year has been high. Undoubtedly the increase in cases has been due in part to added care in the discovery and reporting of mild cases.

Better follow-up of typhoid fever cases and carriers has been made possible by the establishment of a new system of filing in the bureau of epidemiology. It is believed that eventually the system will aid in cutting down the residual or sporadic cases of the disease. The object of the plan is to find new carriers developing from recent cases and to keep in touch with old carriers. Considerable field work has been involved in the investigation of cases and carriers.

The outstanding epidemiological event of the year has been the outbreak of poliomyelitis. The organization of the Michigan Commission on Infantile Paralysis made up

of representatives from ten organizations concerned with the health of children was a direct result of this epidemic. The Commission's work in disseminating information and advice to the public, in educating physicians, in collecting blood of recovered cases for serum, and in aiding physicians in diagnosis and treatment is too familiar to need comment. The total of cases of poliomyelitis for the year, up to December 12, was 1,128 and the number of deaths to November 1 was 96.

Rural health administration has made progress during 1931. There are now 14 district and county health departments furnishing full-time health service to 26 counties. Agencies coöperating in the financing of these departments include the United States Public Health Service, the Rockefeller Foundation, the Children's Fund of Michigan, the W. K. Kellogg Foundation, the state, boards of supervisors, and cities. Because of lessened income from taxes, many counties discontinued other projects, but every existing county health unit was maintained.

The training station for health officers maintained by the Michigan Department of Health in coöperation with the Rockefeller Foundation has had four physicians in training at different times during the year.

RECORDS AND STATISTICS

There has been increased activity in the bureau of records and statistics during 1931. The Legislature of 1931 enacted three laws that directly affected the work of this bureau.

Probably the most important law was the provision for the registration of unreported births. In the absence of any law on this subject, many difficult situations had arisen. The new law provides that where a birth was not recorded in the proper way at the time, it may be registered through the probate court.

In the administration of this law, the bureau of records and statistics permits physicians who were in attendance at a birth to file a delayed report. If the physician is not available, or if, for some reason, he will not file a report, the birth may be registered through the probate court. As the probate court has judicial authority to examine evi-

dence and determine facts, this is a very satisfactory method of registration. The number of registrations has been large.

The new law which put fees for copies of records on a more satisfactory basis makes it possible to determine the proper charge without question.

For some years it has been the practice of the bureau of records and statistics to send each month a transcript of deaths of non-residents to the local registrar of residence. Beginning with the first of January, 1931, this practice was changed and these registrations were sent to the county clerk. The 1931 Legislature passed a law providing for this service. It has also been the practice, coöperating with other states, to send transcripts of non-resident deaths to the state registrars in the case of out-of-state residents. Steps are now under way to provide for such distribution through the United States Bureau of Census, and if this plan is adopted all reports of out-of-state deaths will be sent to Washington and distributed from there to the various states.

Under a coöperative arrangement with the Department of Public Safety, the bureau of records and statistics now furnishes to that department a memorandum of all deaths due to traffic accidents.

The usual volume of record keeping has been handled in the bureau during the year. Since marriages and divorces are incompletely reported at irregular intervals it was not possible to estimate the number of these, but reports of births, deaths and cases of communicable disease for the first ten months of 1931 have been received as follows:

Births	75,783
Deaths	41,190
Cases of Communicable Disease.....	76,796

LABORATORY SERVICE

Laboratory service to aid in the diagnosis of communicable disease has been given to more than 3,000 physicians during 1931. The largest single item of service was in the serum diagnosis of syphilis; over 100,000 such examinations were made. The total number of examinations made by the three laboratories of the Michigan Department of Health, at Lansing, Grand Rapids, and Houghton was 312,710. More than 100

different scientific procedures were in constant use in the diagnostic laboratory.

The principal increase in work came in the Division of Sanitation. Analyses made of roadside and resort drinking waters and the chemical and biological tests run for the Stream Pollution Commission increased more than 100 per cent.

The division of biologic products of the bureau of laboratories has continued to furnish diphtheria antitoxin, toxin-antitoxin mixture, and Schick test material for determining susceptibility to diphtheria; scarlet fever antitoxin, scarlet fever toxin for active immunization, and Dick test material for determining susceptibility to scarlet fever; typhoid vaccine; smallpox vaccine, and silver nitrate ampules. Bacteriophage is also furnished free to physicians and Kahn antigen for the serum diagnosis of syphilis is supplied to laboratories in Michigan doing this test.

Three new products for the control of communicable disease will be added to this list beginning January 1, 1932, material for the tuberculin test, citrate solution for whole blood immunization against measles, and toxoid to replace toxin-antitoxin for immunization against diphtheria. Before toxoid could be distributed, the laboratory had to be thoroughly renovated, additional equipment added, and improvements made so that efficiency would be increased to take care of the extra work necessary in making toxoid. This revamping of the laboratory is now complete.

Technical investigation for the improvement of laboratory service has been carried on constantly during 1931.

SANITATION

Improvement in public water supplies has continued during 1931. Three new filter plants were placed in operation during the year, at Dundee, Blissfield, and Grosse Pointe Farms, bringing the number of such plants in the state to 33. Fifty public supplies are being treated with chlorine, serving a population of almost half a million.

Special effort has been put forth by the bureau of engineering to abolish the few potentially dangerous public water supplies remaining in the state. Seven towns have recently made changes that insure a safe

supply. Fourteen other towns have been ordered to improve their supplies. When these orders are complied with, all of the public water supplies in the state will be safe, with the exception of those in one or two communities where natural and financial conditions make the securing of a safe supply practically prohibitive. The greater part of the work of safeguarding public water supplies has been done during the last twenty years.

Michigan's program of insuring safe drinking water for highway travelers completed its sixth year in the summer of 1931. Approximately 1,900 roadside sources of drinking water were inspected, which entailed traveling 7,200 miles on trunk line highways. The percentage of safety has increased from 63.7 in 1925 when the work was started to 86.4 in 1930.

Resort inspectors visited approximately 2,000 resorts during the past summer, covering every county in the state. Definite improvement over preceding years was shown by the rating of the resorts.

Sewage treatment plants have been completed or are under construction in four municipalities and bonds for this purpose have been voted in a fifth. Eight cities have done extensive preparatory work in sewer construction. Especial effort has been put forth by the state to bring sewage disposal facilities at state institutions up to the legal requirements.

EDUCATIONAL MEASURES

Three bureaus of the Michigan Department of Health—child hygiene and public health nursing, education, and mouth hygiene—have carried on varied educational campaigns. A special series of hygiene lectures was given in the 49 county normal training classes to 1,934 students. More than 5,000 people heard lectures on mouth health and 32,705 listened to general health talks. In answer to 6,817 letters received in the Department, a total of 335,686 bulletins was sent out. Demonstration work in prenatal nursing resulted in 10,795 home calls upon mothers. Classes in child care for girls were conducted in 214 rural schools with an enrollment of 41,804, and classes for women were held in 144 communities with a total attendance of 13,120.

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FEBRUARY, 1932

"I hold every man a debtor to his profession, from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves, by way of amends, to be a help and ornament thereunto."

—Francis Bacon

EDITORIAL

THE STATE DUES

It is characteristic of all of us in times of financial stress to wonder if dues paid to organizations remote from our immediate surroundings are worth what we get out of them. We feel the necessity of local taxes but when we come to those paid the state and the nation we wonder if the burden might not be lessened by further economy away from home.

This editorial, however, is concerned only with the medical situation. There should be no question and doubtless there is none in the minds of the profession in regard to the necessity of the State Medical Society

and the American Medical Association. In the first place a dollar and a half of our dues goes into the subscription to this Journal. It has been the endeavor of the council and the publication committee who have immediate control to make it equal to the best in the United States. Whether they have succeeded or not the reader must decide for himself.

A dollar and a half goes for defense of the members in malpractice or threatened malpractice suits. With the depression these are becoming more numerous, almost an epidemic as it were. Five have been reported in one county of the State, and that not by any means one of the more populous counties. In one month attorney's fees paid out by the State Society have amounted to over \$1,200. So serious has the situation become that the various medical protective insurance companies have considered the advancing of premiums from \$8.00 to \$10.00 over what members have been accustomed to pay for such protection. Membership in the State Medical Society entitles one so charged to defense through to the supreme court if necessary, but for very obvious reasons the Society cannot undertake to pay damages in the instance of an adverse verdict. The matter of medical defense is more important to the physician today than it ever was. No one is exempt from the possibility of a charge of *malpraxis*. We are forced to the conclusion that in the matter of security alone no one can afford to let his practice go unprotected. To do so might be the ruination of his life accumulations and reduction to penury.

But this is not all. One dollar and a half goes towards post-graduate clinics. So progressive is medicine that it demands continued efforts in the way of study to keep informed in regard to the advancements in professional knowledge. There is no finality in science, to say nothing of medical science. Post-graduate study at such intervals as the physician can afford must be considered as part of his professional duties.

For a graphic account of the activities of organized medicine in the county, state and nation the attention of the reader is directed to the January number of this Journal, pages 60 to 65. These illustrations afford a profitable study of the services rendered the individual member of the profession by organization.

THE WAYNE COUNTY MEDICAL SOCIETY

The Wayne County Medical Society has moved to its new home, 4421 Woodward Avenue, Detroit. As announced in the December number of this JOURNAL, negotiations were entered into with David Whitney estate whereby on very generous terms the medical society have secured the Whitney mansion as a club house. The weekly meetings, however, are being held in the auditorium of the Maccabees Building as has been the custom for the past five years. Regarding the history and description of the building the Bulletin of the Wayne County Medical Society comments as follows:

"The magnificent Whitney home was built in 1893 by David Whitney, Jr. The house was occupied by members of the family until the death of Mrs. Whitney in 1917. Since that date, the huge house has been occupied only by servants, who kept it in such condition that it could have been occupied at any moment. The Whitney Estate managers have redecorated the entire building and spent several thousands of dollars arranging a heating control system, all for the benefit of the Wayne County Medical Society.

"The palatial rooms with hand carved woods and beautiful marble mantels have been tentatively arranged for the Society's uses. The drawing rooms will be utilized as the lounge; the library will become the executive offices; the dining room and music room will be given over to the diners; the den and office will be used for committee purposes; the large kitchen with its three stoves and built-in grill will be ample for serving one hundred or more physicians and surgeons who are expected to take luncheon in the new headquarters every day."

The commodious building will afford room for expansion as well as increase in the activities of the Society, and concerted effort on the part of all members of the medical profession was never more necessary than it is today. There are many things to be undertaken, abuses of privilege to be corrected. In a large metropolitan city things move rapidly and the medical profession is affected adversely sooner than the profession in smaller centers or in the rural portions of the country where industrialism, with its attendant evils, is less felt. The social and economic problems present

themselves first in the large centers of population and it is here that they must be met and solved and whatever solution or compromise that is effected must serve as a precedent elsewhere. The Trustees of the new Wayne County Medical Club extend a perennial welcome to members of the Michigan State Medical Society to make free use of the club when in the city. The dining service has been and will continue to be second to none in the State and in making this statement we have in mind the more costly and seclusive lay clubs. Come and get acquainted. Every member of the Michigan State Medical Society is invited to attend the scientific meetings held every Tuesday evening in the auditorium of the Maccabees Building, corner of Woodward and Putnam Avenues.

TAXATION

The writer's only qualification to deal with this subject is the fact that, together with other members of the medical profession, he has had to pay almost every conceivable tax that has been levied on the holdings and income of this class of citizen. His excuse is the fact that there is perhaps no more pressing subject with which we have in some form to concern ourselves. It may be said further that this is a personal attitude which is not intended to commit the JOURNAL to any definite policy on the subject of taxation.

Taxes are a necessity; this no thoughtful person will deny. Furthermore, no problem has concerned our elected representatives, whether in city, county or state, more than this. In exercising the taxation power they have not always shown the best wisdom. The tendency in many instances has been to follow the line of least resistance, to tax real property that is most stationary and therefore most easily accessible.

One of the most pregnant statements ever made is, "The power to tax is the power to destroy." So unwisely has this power been exercised that in many instances efforts have been made to dispose of real estate, but prospective buyers have become fewer and fewer until the value of real estate has reached, in many instances, the vanishing point. This is true of much good (so far as natural endowment is concerned) farm land. It is absolutely worthless so far as any

adequate financial return is concerned. Nor is this true of farm land alone. In the cities, acres of buildings have been wrecked and the ground turned into parking space. This is true even on Woodward Avenue, Detroit, perhaps the most valuable thoroughfare in Michigan.

Our contention is that the tax should be as democratic as the vote. It should include all luxuries such as tobacco (the writer is fond of a good cigar), gasoline (which we also use), amusements (not so much). The sales tax is also democratic and worthy of consideration in as much as one pays as he buys. This should relieve the home to a large extent, and the home should be protected. When the home is gone the family is cast adrift, which is one of the most unfortunate circumstances that can befall human beings. Civic and national undertakings such as public utilities, as street railway transportation and the post office, should be made selfsustaining.

We are simply announcing a principle in taxation that might be followed with advantage by city, state, and nation. It would go a long way towards relieving the home owner, be he farmer or city dweller.

In the efforts to cut down the costs of government our representatives, whether city, county, state or nation, find themselves handicapped by certain large expenditures which have been called "fixed charges." Of fixed charges so-called the United States Government must include \$2,263,000,000 in its 1932-33 budget. This represents 55 per cent of the entire cost of government.

For the State of Michigan the aggregate gross debt according to the census bureau amounts to \$94,903,000 while the net debt which represents the fund and floating debt minus assets in general sinking funds amounts to \$64,316,000.

Our cities have their own "fixed charges"; in the instance of Detroit it amounts to \$380,000,000 which must be retired at the rate of \$32,000,000 each year, including interest; in other words this fixed obligation will cost Detroit one dollar a second throughout the year 1932. Other cities might have a similar story to tell.

A large portion of these fixed charges is the result of voting for improvements and extension of public service and privilege by persons who thought they were voting the cost on the other fellow. Democratization

of the tax in keeping with the democratic vote would have obviated a goodly amount of these so-called fixed expenses of government.

"The pressure of untaxed and more or less unpropertied millions on national Treasuries inevitably leads to far more serious troubles than the raids of a few courtiers or placemen," says James Trustlow Adams.

The writer wishes it distinctly understood that he is not an advocate of higher taxes but of such a distribution of tax responsibility as will dispose a larger number of people to feel its importance when it comes to the expenditure of public funds. This cannot be accomplished by confining taxes to comparatively few and exempting the many. Had such a policy been inaugurated years ago, greater caution would have been exercised in the matter of so-called public improvements and we would not have found ourselves in the predicament which faces all departments of public activity at the present time.

THE CANCER COMMITTEE

In this number of the Journal appears the supplementary report of the Cancer Committee of the Michigan State Medical Society. This report contains a number of state maps that are worth careful study, presenting as they do in a graphic way the cancer situation in this state.

The information presented is the result of replies from questionnaires mailed county secretaries throughout the state. The report shows the findings of the first survey of the kind to be undertaken. It is important as showing also the deficiencies in the various counties as they are at the time. It will be interesting to compare subsequent surveys with the present and we hope that it will be an incentive to fill in the vacant spaces of those counties and districts in which facilities for the apprehension and control of the disease are inadequate.

THE TREND OF POPULATIONS

According to recent statistics the population of France is 41,835,000, a gain of two million over the census of 1921. The ratio of population of France to that of Germany today is 42 to 64, counting in millions; at the beginning of the war it was 40 to 70.

In other words the pre-war margin of population between the two countries was 30 million; today it is 22 million. At the outbreak of the Franco-Prussian war (1870) the populations of the two countries were nearly equal.

It would seem that there is a definite relation between population and the operation of economic forces. In fact Malthus was one of the earliest to make the observation that there is a very responsive relation between population and food supply. There has been a world-wide decline in birth-rate. A revision of forecasts regarding the future populations of nations and the estimates have been for the most part downward. The forecasters see the population of Germany stabilized by 1945.

The United States has also participated in the decreasing birth-rate. Subtracting the infant mortality from birth-rate, 22.5 children per thousand of population reached the age of one year in 1916 and less than 20 per thousand in 1926. Some statisticians predict that according to the present decreasing rate the population of the United States will become stationary by 1970. Owing to restricted immigration the influx of immigrants of the earlier years of this century has been decreased from 1,000,000 a year to approximately 150,000 at the present time.

The subject of birth control has been discussed widely both in this country and in Europe. However, nature has a way of taking care of the problem of population in its widest biological sense, that is not always the most comfortable to sensitive human beings, in spite of the efforts of scientific medicine to frustrate the principle of the "survival of the fittest."

A BIT OF ANCIENT MEDICAL HISTORY

The great epics of the Greeks such as the *Iliad* and *Odyssey* have been found by archeologists to have had a historic basis in the extinct civilizations of Troy, Mycenæ, and the largest, the Minoan in Crete. Crete has been said to be a "half way house between two continents." It was the starting point of European civilization. Minoan culture lasted over 2,200 years, a period of time equal to that from the rise of Athens to our own time. The Minoans left no writings that so far are intelligible to modern

interpreters, but excavations about the palace of Knossos (1600-1200 B. C.) reveal evidence of sanitation, a drainage system excelled only by the Romans of much later times. There have been discovered huge pits for the purpose of disposing of city sewage and garbage. The palace was equipped with ornate bathrooms showing the attention paid to personal hygiene. During this time the rest of Europe was inhabited by barbarians of the Bronze Age. Sanitation, which is usually the latest achievement of civilized peoples, was recognized by these inhabitants of Crete over 3,000 years ago. There is a possibility that the sanitary and personal hygienic practises of the Minoans had an influence later upon the Greeks, though no intelligible written records exist at the present time to substantiate this. A name associated with the excavations at Knossos is Sir Arthur Evans,* whose work is as thorough and notable as that of Schliemann of Troy or Woolley of Ur.

* * *

The ancient Greeks were a composite people consisting of Dorians, Thessalians, Achaïans, Aeolians and Ionians. They were both mountaineers and seafaring people, a fact which made for restless independence. But this very characteristic later led to their downfall for the Greek had no conception of other than city state. They never learned that in union there is strength. The origins of the Greek civilization go back about 3500 B. C. to such places as Troy and Mycenæ. This was the age of polytheism. Every little clan or village worshipped its special god while at the same time they showed a vague general reverence for the greater gods. The names of the gods are familiar to every school boy. The chief god of healing among the Greeks was Apollo, the averter of ills. He was the physician to the Olympian gods, whose illness he cured by the root of the peony. Æsculapius was the son of Apollo. Æsculapius became so efficient in the art of healing that he was accused by Pluto of diminishing the inhabitants of hades. His followers constituted themselves a cult or guild known as Asclepiads. A number of temples were built to this cult, the most famous of which were those at Cos, Epidaurus, Cnidus and Pergamus. "These temples," according to Garrison, "became

*Accounts of Evans' discoveries in Crete appear in Garrison's *History of Medicine* and in six centuries of Health and Physic by Stubbs and Bligh.

popular sanitaria managed by trained priests, not unlike the health resorts of modern times. The patients were received by the priest-physicians, who stirred their imaginations by recounting the deeds of Æsculapius, the success of the temple treatment and the remedies employed." The temples were located on hills and amid groves and often near mineral springs. The cures effected were largely due to rest and favorable environment.

Hygeia and Panacea were the legendary children of Æsculapius. They assisted in the temples and fed the sacred snakes. The ancient Greeks as well as the Egyptians, Cretans and Hindus venerated the serpent. Æsculapius is often represented with a rod around which a snake is entwined. Hence the early origin of the serpent as symbolic of the healing art. The sons of Æsculapius were Machaon and Podellirius, the first surgeons accompanying the military expeditions described in the Iliad. Of Machaon, Homer writes, "O Neleian nestor, great glory of the Greeks, come, ascend thy chariot and let Machaon mount beside thee; and direct thy solid hoofed horses with all speed toward the ships, for a medical man is the equal of many others, both to cut out arrows and to apply mild remedies."

* * *

Greek medicine before the time of Hippocrates had a triple relationship with science, with gymnastics and with theology.

The Grecian period of medicine may be conveniently divided into three epochs, namely, the pre-Hippocratic, the classical period of Hippocrates and his school and the Greco-Roman period. The period of Greek influence upon medicine extended over approximately eight hundred years, from 600 B. C. to the death of Galen 200 A. D. We have drawn attention to the mythical age of Greek medicine when magic prevailed. About the seventh-sixth century B. C. Greek thought becomes clear and definite, devoid of mysticism, and no longer hampered by idea-arresting magic. As one writer proclaims it, "With sure and serene wisdom untrammelled by the heavy cloak of magical theory, tradition or tabu they (the Greeks) practised a system of medicine so soundly based that modern medicine owes it a debt whose value can hardly be exaggerated. In fact we appear to emerge with the abruptness of a train coming out of a tunnel from the noisome darkness of

superstition into the healthy sunshine of science."†

The Latin poet Lucretius has expressed the Greek influence upon medicine even more strongly in verse:

"Out of the night, out of the blinding night
Thy beacon flashes;—hail, beloved light
Of Greece and Grecian; hail for in the mirk
Thou dost reveal each valley and each height."

* * *

We come now to the Hippocratic or classical period. In spite of the fact that the great Father of Medicine was contemporary with the great dramatists, philosophers and artists of the Golden Age of Greece, yet little is definitely known of him as a personality. He was born on the island of Cos about 400 B. C. The date of his birth has been also given as 460 B. C. His age has been given as 90 years to 110. He was the son of an Asklepiad and a pupil and later a teacher in the medical school of Cos. He travelled widely for the times and practised his profession. His fame was beyond description. In fact he became almost a deity.

Plato writes of him as a member of the guild or society known as the Asclepiadæ. It is possible that he was a wide traveller. A biography by Soranus* in the second century fails to give any important details in regard to his life. Aristotle mentions Hippocrates only once in his politics and Plato, who was a younger contemporary, mentions him only twice in his dialogues.

Early in the history of the Alexandrian Medical School (circa 300) a group of medical works that has since become known as the Hippocratic collection were placed into circulation. Hippocrates was held in so great

†Six Centuries of Health and Physic. By Stubbs and Bligh.

*Soranus, the first biographer of Hippocrates, lived during the reign of Hadrian (A. D. 117-138), about twenty years before Galen, who held him in great esteem in spite of the fact that he belonged to a post-Hippocratic cult known as Methodists. It might be stated here that the Methodists were a Greco-Roman school of the first century B. C., who attempted to steer a middle course between the dogmatists and the Empirics. They held that there were certain symptoms common to many diseases. In all diseases there was decrease or increase of secretion or excretion due to dilatation or constriction of the parts of the body; hence treatment consisted of laxatives or astringents and patients were classed accordingly—hence the name Methodist. Disease was an independent entity to be dealt with apart from individual peculiarities. The Methodists despised anatomy. The sect attracted the practical mind of the Roman. Withington states that the fact that so many of the Methodists were distinguished as "ladies' doctors," shows that women were attracted to the new system. These facts accounted for its vogue during the pre-Galenic period. The fame of Soranus, however, rested not so much upon his inadequate biography of Hippocrates as on his general skill and knowledge as a physician, chiefly upon his knowledge of gynecology. He received his education in the later Alexandrian school. Only fragments of his work have survived the centuries. The invention of printing, while an untold blessing to man, was the cause of the destruction of many valuable manuscripts.

vation at the time that into this collection was placed anything thought valuable, irrespective of its real authorship. The genuineness of some of these works was early suspected. Among the number to engage in critical study was Galen, who lived over five hundred years after the death of Hippocrates. Even during this interval the so-called works of Hippocrates had undergone change through accretion and through loss. The earliest manuscript is of the ninth century A. D., but the earliest translation is in Latin of the seventh century A. D.

Two schools of medicine were early founded, namely that associated with the peninsula of Cnidus, and one some time later on the island of Cos. It is with the Coan school that the name of Hippocrates has been intimately associated throughout the centuries. The Coan and the Cnidian schools represented difference of medical opinion even at this early time. Hippocrates was, however, considered above sectarianism in medicine. He was, according to Celsus, the first to separate medicine from philosophy. In other words he observed and drew his conclusions from his observations without being influenced by any preconceived notions.

* * *

During the past quarter of a century Hippocrates, or, better, what is known as the Hippocratic collection, has been subjected to investigation by the scientific method or the higher criticism which has proved of such value in winnowing the wheat from the chaff in the study of the Hebrew biblical literature. The Hippocratic collection provides an ideal ground for textual criticism. The consensus of scholarly opinion is that Hippocrates wrote very few of the works attributed to him.

The Hippocratic collection consists of about sixty books dealing with medical and health topics written at various dates within a range of one hundred to three hundred years from the earliest to the latest. According to scholarship only six or seven of the books were written by Hippocrates himself.

The six books of the Hippocratic canon are: I. The Prognostic, which is a work of general pathology with special emphasis on acute diseases. The writer declares that it is an excellent thing for a physician to practise forecasting. In the prognostic is to

be found the famous passage dealing with the signs of impending death.*

"In acute diseases the physician must conduct his inquiries in the following way. First, he must examine the face of the patient and see whether it is like the faces of healthy people and especially whether it is like its usual self. Such likeness will be the best sign and the greatest unlikeness will be the most dangerous sign. The latter will be as follows, nose sharp, eyes hollow, temples sunken, ears cold and contracted and with their lobes turned outward, the skin about the face hard and tense and parched, the color of the face as a whole being yellow or black."

Shakespeare was evidently familiar with the famous passage in the prognostic, for he gives the following description of the death of Falstaff (Henry V):

"You should observe thus in acute diseases; first, the countenance of the patient, if it be like those of persons in health and especially if it be like itself, for this is best of all. But the opposite are the worst; such as these—a sharp nose; hollow eyes; collapsed temples; the ears cold, contracted, and their lobes turned out; the skin about the forehead rough, stretched and parched; the color of the face greenish dusky livid or leaden. If the countenance be such at the beginning of the disease, and if this cannot be accounted for by the symptoms, and if the symptoms do not subside in a day and a night; be it known for certain that the end is at hand."

All of which goes to show how careful Shakespeare was to make use of the best knowledge of his day pertaining to every phase of human life.

Supplementary to the prognostic is the *Regimen in Acute Diseases*. Then follow the epidemics, Books I and III. The aphorisms contain nuggets of clinical wisdom that were probably the summation late in life of Hippocrates' vast first-hand experience. Withington says, "that they were for ages classed among the most wonderful products of human genius." The total number of aphorisms is 412. They are composed in a style that is almost Baconian in its directness. We have a clear generalization of observed fact. A few are here selected almost at random:

Life is short, art is long, opportunity fleeting, experience treacherous or deceptive, judgment difficult. The physician must be ready, not only to do his duty himself, but also to secure the coöperation of the patient, of the attendants and of the externals.

Old men endure fasting most easily, then men of middle age, youths very badly, and worst of all children, especially those of liveliness greater than ordinary.

*The quotations of the prognostic, the aphorisms and the oath are from what is perhaps the most convenient as well as readable edition of Hippocrates, edited and translated by W. H. S. Jones for the Loeb Classical Library. This edition consists of pages of the author's Greek faced by a page of translation.

Do not disturb a patient either during or just after a crisis, and try no experiments, neither with purges or with other irritants, but leave him alone.

Spontaneous weariness indicates disease.

When sleep puts an end to delirium it is a good sign.

Old men generally have less illness than young men, but such complaints as become chronic in old men generally last until death.

A convulsion supervening upon a wound (*i.e.*, tetanus) is deadly.

Consumption occurs chiefly between the ages of eighteen and thirty-five.

When patients spit up frothy blood, the discharge comes from the lungs.

Kidney troubles and affections of the bladder are cured with difficulty when the patient is aged.

If you give a fever patient the same food as you would give a healthy person, it is strength to the healthy person but disease to the sick.

Ascribed to Hippocrates is also a book on geography, including climatology. This is entitled *Airs, Waters, Places*. And lastly is *The Sacred Disease* which is a discussion of epilepsy and other brain seizures.

* * *

Then attributed to Hippocrates is the famous oath which has been changed by succeeding generations of writers who have interpolated, so that as it stands it is probably largely a production of the third century A. D. The Hippocratic collection as we have already intimated is the work of different schools of medicine, sometimes holding quite contradictory views. There is no one of the books that can be proven beyond a doubt to be by the Father of Medicine.

According to Charles Singer* of the finest books of the Hippocratic collection we can only say that they contain nothing inconsistent with their Hippocratic origin, that their ethical standards accord with the Hippocratic ideal and that they are the work of physicians of great intellectual power and experience.

THE HIPPOCRATIC OATH

"I swear by Apollo the Physician, by Æsculapius, by Health, by Panacea and by all the gods and goddesses, making them my witnesses, that I will carry out, according to my ability and judgment this oath and this indenture.

"To hold my teacher in this art equal to my own parents; to make him partner in my livelihood; when he is in need of money to share mine with him; to consider his family as my own brothers and to teach them this art, if they want to learn it without fee or indenture; to impart precept, one instruction, and all other instruction to my own sons, the sons of my teacher, and to indentured pupils and to no one else.

"I will use treatment to help the sick according to my ability and judgment, but never with a view to injury and wrong doing.

"Neither will I administer a poison to anybody when asked to do so, nor will I suggest such a

*Encyclopedia Britannica, article on Medical History by Charles Singer.

course. Similarly I will not give a woman a pessary to produce abortion. But I will keep pure and holy both my life and my art.

"I will not use the knife, not even, verily, on sufferers from stone but I will give place to such as are craftsmen therein.

"Into whatsoever houses I enter I will enter to help the sick and I will abstain from all intentional wrong doing and harm, especially from abusing the bodies of man or woman bond or free.

"And whatsoever I shall see or hear in the course of my profession as well as outside my profession in my intercourse with men, if it be what should not be published abroad I will never divulge, holding such things to be holy secrets.

"Now if I carry out this oath and break it not, may I gain forever reputation among men for my life and for my art; but if I transgress it and forswear myself, may the opposite befall me."

—From W. H. S. Jones' Edition of Hippocrates.

* * *

The so-called Hippocratic writings are probably the remains of the medical library of Cos.

European medicine had its beginning in the age of Pericles when Hippocrates gave Greek medicine its scientific spirit and its ethical ideals as seen in the Famous Oath. As we have inferred, Hippocrates was a contemporary of Sophocles, Euripides and Aristophanes, the dramatists, and Socrates and Plato, the philosophers, as well as the Greek historians Herodotus and Thucydides. He lived at a time when the Athenian democracy was at its best.

Hippocrates crystallized the loose knowledge of the Coan and the Cnidian schools into a systematic science. Some of the best descriptions of disease of the Father of Medicine are models of case history taking even for the physician and medical student of today. According to Garrison, Hippocrates virtually founded the bedside method which has been the distinctive talent of all true clinicians from Sydenham and Herberden to Charcot and Osler. He taught the doctrine of humoral pathology which attributed disease to disorders of the fluids of the body. This has been discarded except that it has its modern counterpart in serotherapy.

WEELUM HAS HIGH HOPES OF THE DOCTORS REACHING HEAVEN BUT WARNS THEM OF HELL

Last nicht ah sat doon in ma easy chair tae enjoy an 'oors readin' afore pittin' mysel intel ma bed. When ah looked on th' second page o' th' paper, ah foond an article about a meenister awa oot in Nebraska wha had preached a sermon in which he said ther' wasna ony Hell.

Noo ah dinna want tae pit mysel oop as a student o' diveenity but ah ken verra weel that ther' is a Hell. A guid ane at that. A've been there. A've been there twa times already. A'm nae sae sure

bit a've been there mair times than that.

Aye! an' some o' you chaps hae been there mair than once, an' some o' ye are headin' right for there th' noo, an' if ye dinna turn roon' an' gang th' ither way, ye'll gang richt doon intil th' hole fer th' rest o' yer life. There's a lot o' chaps wha hae'na got th' guts tae turn roon tae gang th' ither way, an' there's nae much hope for thae kind o' men, fer it's nae a guid place tae get oot o', ance yer there.

It's verra hot weather there, an' it's a lang way doon th' hills, an' th' perspiration is rinnin' a' doon yer face an' neck, lang afore yer doon tae th' main floor, an' mon! when yer warkin' yer way oot o' th' place yer whiskers are singed mony times afore ye get verra far on th' road an' if ye dinna hae a lot o' ambeetion or determination ye'll nae succeed verra weel, a'm tellin' ye.

Noo there's a Heaven too ye ken. Aye,—Heaven's a bonnie place. Aye,—It's a verra bonnie place. Ma,—Ma Mither's there,—an' yer mither's there. Aye,—an' th' wee bairnie what wis ta'en awa frae ye, wi' diptheria, she's there too, waitin' at th' gate for ye, wi' white robes an' Angel's wings an' thae bonnie blue e'es an' winsome smile. Aye,—there's a Heaven, too.

But ah canna tell wha's th' matter wi' a meenister wha says there is nae ony hell. Ah ken there's a hell. You ken there's a hell. We a' ken there's a hell. A' he men kens there's a hell, an aw'fu hell. A'm sair fashed about th' meenister. Has he had nae experience wi' th' he-men o' th' countrae? A'm thinkin' he must o' gone clear crazy in th' heid.

Weel, a'm glad there's a Heaven. That's where a' th' Doctors go, aye,—an' maist a' o' th' meenisters an' some o' th' lawyers, but a'm nae sae sure about th' politicians. Th' fairmers wull a' go there, too, a' bit th' ane what pits th' wee potatoes doon in th' bottom o' th' bag. Mony o' th' storekeepers wull be there, too, but no th' ane doon in Nebraska wha sold me that wee bag o' stale peanuts for fresh roasted anes. He'll nae get intil Heaven. Not if ah can help it.

A'm sae worriet about th' meenister wha says there is'na ony hell. It's an aw'fu place, an ah dinna want ony o' you chaps comin' oop tae Heaven ten years frae th' noo an' tellin' me that ah didna warn ye about it.

WEELUM.

COMMON ANOMALIES OF DUODENUM AND COLON: THEIR PRACTICAL SIGNIFICANCE

Statistical data resulting from eight years' combined clinical and roentgen study are presented by John L. Kantor, New York, for the following anomalies: (a) transduodenal bands, (b) redundant colon, (c) high cecum, and (d) low cecum. He states that the chief clinical aspects of transduodenal bands are their occurrence in asthenic women, their association with "duodenal migraine," and their mimicry of duodenal ulcer and gallbladder disease. The chief clinical aspects of redundant colon are its occurrence in all builds and both sexes, its association with marked constipation and, less strikingly, with pain and gas. The chief clinical aspects of high cecum are its occurrence in eupeptic sthenic males, and the ectopic position and increased tendency to inflammation of the appendix. The chief clinical aspects of low cecum are its occurrence in asthenic women and its association with headaches and vomiting, and discomfort in the right lower quadrant. The author offers an explanation for the mechanism of the production of the toxic or reflex symptoms in low cecum and summarizes the general significance of digestive anomalies.—*Journal A. M. A.*

MEDICAL ECONOMICS

THE FALLACY OF GRANTING LIFE DIPLOMAS

J. A. CAMERON, M.D.
PICKFORD, MICHIGAN

There is no one person upon whom society in general is so entirely dependent as upon the physician. He is the sole arbiter in all things pertaining to health and disease. In recent years, the profession is supposed to have shaken off all the supersitition of the ages gone, and to have established itself on a scientific basis. The young man, who today would become a practitioner of Medicine and Surgery, is required to take an extensive course of training, and after that must get some experience through hospital training before being turned out to enter into active work. So much—so good.

Granting that all physicians are sufficiently trained during their student years, and start out in their work well equipped, have we made any provision whereby they shall keep up their work and advance with the times? It was stated recently by a college professor that the practice of medicine had almost entirely changed within five years. Has any provision been made whereby the members of the profession shall be compelled to take up these new methods in the treatment of disease? Nothing, whatever. The young physician today gets his diploma without any strings attached to it. There is no guarantee that he shall ever read another book or ever attend a clinic. He can go out and practice his profession for the remainder of his life and under ordinary circumstances, if he is a good mixer, can hold the respect of his community.

The laity is in no position to question his knowledge of diagnosis and treatment. They cannot tell who is the good doctor from one who is years behind the times. Doctor Charles Mayo said, in a talk given to graduates, recently: "The only one who knows the good doctor is the *good doctor*." A very true statement, indeed. Some of our universities now have chairs of post-graduate medicine and are doing what they can to keep the man who graduated years ago up to date; but the taking of these courses is optional with the doctor and when he is sufficiently fossilized he is loath to get back to school. It is too much of an admission to his people that he is not the walking encyclopedia of medical knowledge he has taught them to believe.

It is the duty of the profession, itself, to see that the public is supplied with physicians sufficiently trained to diagnose and properly treat disease. The people cannot do it. The responsibility rests with physicians, themselves. No physician should be given a life diploma; every physician practicing medicine should be compelled to appear before a Board at least every five years and convince them that his methods are up to date. When such physician requires a course in any specified subject he should be compelled to take such course before his new diploma is given.

We would not think of hiring a teacher in our public schools without inquiring into his standing. Most teachers' diplomas are at first granted for a stipulated time, and, furthermore, arithmetic and most subjects do not change.

The practice of medicine does change. The physician who goes out to the small town, gets himself into the village society, helps the church and clubs and is an all-around good mixer, is a most danger-

ous member of society if he does not, at the same time, keep up to the times in his profession.

The people who look to him in sickness are living in a false security and a mistake in diagnosis or treatment may at any time lead to disastrous results due to his incompetence.

Many physicians practicing today were not taught some of the subjects in the modern curriculum, but there are two ways in which they may acquire a knowledge of new work. They may either take one of the post-graduate courses given at most colleges today, or, when the physician cannot leave his field, he may be trained in this new work by special men sent out for this purpose. With a few office demonstrations in intravenous treatment or the use of the ultra-violet ray, he will be able to add this to his amamentarum and by so doing will not fear the impending appearance before the Board at the end of his five-year term.

In any event, however, something should be done to get our physicians up to the highest degree of efficiency and keep them there.

COMMUNICATIONS

Dear Mr. Editor:

Will you kindly publish the following in the Michigan State Journal?

"Dr. Julius Bauer of Vienna, Austria, will visit the United States during September and October, 1932, to deliver a series of Post-graduate Lectures. Dr. Bauer is the Professor of Medicine in the University of Vienna. He speaks English fluently, and is a man of international reputation. Any Medical Societies that may be interested in this work will kindly get in touch with Dr. P. I. Tussing, 507 West Spring Street, Lima, Ohio, at once."

W. M. McDONALD.

Detroit, January 15, 1932.

January 15, 1932.

My dear Dr. Dempster:

We wish to thank you for doing us the honor of reprinting our description of the A. M. A. Conference of Secretaries and Editors in your Journal, and also for taking the trouble of introducing it with a brief paragraph from your own pen.

We always enjoy reading the Michigan Journal; and if you will turn to page 1542 of the annual index of the New York State Journal of Medicine, you will find that we abstracted twenty articles from your periodical.

Wishing you editorial success and personal happiness.

FRANK OVERTON, M.D.

This very kind note of appreciation is from the executive editor of the *New York State Journal of Medicine*. It has been our good fortune to know Dr. Overton personally for several years and we wish to say in return that we have derived great benefit from the *New York State Journal of Medicine*, which reaches our desk regularly every two weeks. If the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY has proved in any way satisfactory to the readers it is largely because we have good models of medical journalism before us. Thank you, Dr. Overton.—Editor.

GENERAL NEWS AND ANNOUNCEMENTS

The Detroit Academy of Surgery held its regular monthly meeting at the University of Michigan on Thursday, January 14. The program was provided by the surgical staff of the University of Michigan.

Mr. James B. Charters of Bay City, father of Dr. J. Hamilton Charters of Detroit, died on January 13 of cerebral hemorrhage. Mr. Charters was employed for nearly half a century as engineer on the Michigan Central Railway.

Dr. Angus McLean of Detroit will attend a meeting in Washington relative to World War Veterans' Legislation. Dr. McLean is chairman of a committee in this state which was announced in these columns a few weeks ago to study the situation of World War Veterans so far as it affects hospitalization and service to those unable to carry on.

A "house warming" in connection with the occupation by the Wayne County Medical Society of their new club quarters, 4421 Woodward Avenue, Detroit, was held on January 29 when the members of their Society and their wives and friends turned out in full force to inspect the building which has been tendered them by the David Whitney estate.

Friday, January 15, was the occasion of the opening of the new wing of the Grace Hospital, Detroit, when a large number of the members of the medical profession and their wives responded to an invitation to inspect the new hospital. The reception lasted from 5 P. M. until 9 P. M., during which time a splendid buffet supper was served, the hosts being Superintendent Warren L. Babcock and the Trustees and attending medical staff. The hospital represents, one would say, the last word in efficiency.

The Journal of the Michigan State Medical Society has for a number of years conducted this department of general news. The purpose is to include such items as are considered of general (not local) interest to the profession of the State. The fact that these items are read is justification for their appearance here. The editor does his best to include as many as he can procure but is keenly aware that there are many interesting events that are not recorded. Items are therefore solicited from our readers for this department.

A survey of the standing of medical men in the United States Veterans Bureau relative to their membership in various medical societies presents the following: Out of 1,291 medical men, 32 per cent, or 412, are members of the American Medical Association and of those members only 241 are also fellows of the American Medical Association; 873 of the physicians, or 68 per cent, are not members of their county or state medical societies. Of the 1,291 medical men in the Veterans Bureau only 18 are fellows of the American College of Surgeons, this constituting but 1.3 per cent of the total.

Prospective contributors to medical journals should always ascertain the conditions under which contributed articles are accepted for publication. For example the terms of publication of articles in the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY will be found stated in the paragraphs in fine print at the head of the first editorial. Some journals, especially those in which the subscription price is above the average, can afford more liberal terms in the way of reprints and illustrations than can other journals which are published at the lowest possible cost to their readers. Under any consideration misunderstanding may be avoided by reading the terms of acceptance of contributions which will always be found on the title page of such publication.

The annual election of delegates from the Wayne County Medical Society to the Michigan State Medical Society resulted as follows:

Delegates: H. W. Plaggemeyer, L. J. Hirschman, F. A. Kelly, H. W. Yates, A. H. Whittaker, W. J. Stapleton, Jr., J. H. Andries, H. A. Luce, G. C. Penberthy, R. M. McKean, C. E. Dutches, L. O. Geib, E. D. Spalding, A. P. Biddle, J. L. Chester, B. U. Estabrook, C. K. Hasley, W. S. Reveno, J. D. Curtis, D. M. Foster, N. M. Allen, S. P. L'Esperance, S. W. Insley, E. C. Baumgarten, C. S. Kennedy.

Alternates: A. E. Catherwood, L. T. Henderson, C. B. Lakoff, D. I. Sugar, C. J. Barone, D. J. Leit-hauser, L. J. Garipey, W. P. Woodworth, B. L. Connelly, W. D. Barrett, R. D. McClure, L. B. Ashley, W. L. Hackett, J. C. Kenning, J. R. Rupp, R. B. Kennedy, C. R. Davis, S. G. Meyers, X. A. Jones, W. H. Honor, L. Mae James, Frank Witter, V. L. VanDuzen, E. E. Poos, G. J. Baker.

NORTHERN TRI-STATE MEDICAL SOCIETY

The Council of the Northern Tri-state Medical Society met January 2, at the Commodore Perry Hotel in Toledo, and formulated the following program for the next meeting in Toledo early in April. Clinics for the morning session beginning at 9:00 A. M. will consist of a Psychiatric clinic by Drs. Fordyce and Kaiser of the State Mental Hospital of Ohio; Bone and joint clinic, by Dr. Edward Gillette, of Toledo, Ohio; Dermatologic clinic by Dr. Udo Wile of Ann Arbor; each of these clinics is of one hour duration.

The afternoon session will be devoted to the reading of papers by men of national prominence.

Dr. Udo Wile will present a paper on "The Fluid Status of Syphilitic Therapy"; Dr. Walter Parker of Detroit, a paper on "Pappiloedema, or Choked Disc"; Dean Lewis of Baltimore, "Bone Lesions and Their Treatment"; Stanley Rieman of Cincinnati, "Sulphydryl—Further Studies in Cell Division"; Dr. H. B. Lewis, Ann Arbor, "Recent Studies in Blood Chemistry."

The evening program will consist of a dinner followed by an address by a man of outstanding character.

The Council of the Tri-state Medical Society for 1932 consists of:

Dr. H. D. Camp, Ann Arbor, president; Dr. E. D. Pedlow, Lima, Ohio, secretary; Dr. H. B. Larson, Laporte, Ind., treasurer; Dr. Senseny, Fort Wayne, Ind., vice president; Counsellors, Dr. Norris Gillette, Toledo, Ohio; Dr. H. D. Randall, Flint, Mich.; Dr. Hoffman, Fort Wayne, Ind., and Dr. W. M. Donald, Detroit, Mich.

OBITUARY

DR. C. D. CHAPPELL

Dr. Carl D. Chappell of Flint died on January 11 at Philadelphia after an illness of several months. He was born at Mt. Morris in 1878. He received his medical training at the Michigan College of Medicine and Surgery. For the past few years he confined his attention to roentgenology, having at one time charge of the X-ray department of the Hurley Hospital, Flint. Dr. Chappell was at one time president of the Genesee County Medical Society. He is survived by his wife and one son, William, and a daughter, both of whom live at home.

RADIATION THERAPY IN CANCER OF MOUTH: USE OF PURE GAMMA RAYS

G. E. PFAHLER and J. H. VASTINE, Philadelphia, describe the technic of pure gamma irradiation, which they have used in the treatment of 111 patients with intra-oral cancer. Of these, thirty-nine have become symptom-free and are at present apparently well after a period of from one to five years; and nineteen are still under treatment and expected to recover. Treatment was interrupted in four patients; five patients cannot be traced, and forty-four are dead. The authors believe that 50 per cent of the patients with cancer of the mouth should recover if treated at once, thoroughly and skilfully by this method as soon as they come under the care of a physician, and 75 per cent should recover when patients can be taught to apply for treatment earlier. The advantages of pure gamma radiation treatment are as follows: It is painless at the time of application, though it causes soreness and swelling in the mouth at the height of the radiation effect. It does not require an anesthetic. It does not require hospitalization. It does not produce mutilation. It usually does not produce constitutional symptoms. The skin effects, when carefully managed as directed, are of no consequence. In tongue cases, the function of the tongue is preserved. It usually causes the disappearance of metastatic lymph nodes. When these are sluggish, radium needles are sometimes inserted into the lymph node. If the glands break down they are removed surgically. The disadvantages of pure gamma radiation treatment are as follows: It is exceedingly expensive, because one is only using a small portion of the total radiation. It is not very practical to hire radium because one must pay while it is in transit. A considerable quantity of radium must be available if one is treating a number of patients, and any one who treats only a few patients generally lacks experience. It interferes with the occupation of the patient during a period of at least a month. It requires the constant or daily supervision of the experienced radiologist and cannot be turned over to technicians. It requires the constant coöperation of the patient, which may be difficult to obtain. The prolonged treatment that is necessary may be interrupted by ignorant patients who do not appreciate the seriousness of the disease or who consider themselves well prematurely. The greatest possible precautions against undue personal exposure must be taken by the radiologist and the technician because of the large amounts of radium that must be used.—*Journal A. M. A.*

**MICHIGAN
STATE
MEDICAL
SOCIETY
ITS
EXPANDING
ACTIVITIES
IN BEHALF
OF THE
MEMBERS
AND
PUBLIC**

- 1913 {
1. Scientific County Meetings
 2. Annual Meeting
 3. The Journal
 4. Legal Defense

- 1918 {
1. Annual Meeting
 2. Legal Defense
 3. Enlarged Journal
 4. Tuberculosis Society
 5. Military Committee
 6. Clinical Terms
 7. Aid to County Societies
 8. Active Committees on Civic Relations Tuberculosis Public Health Venereal

- 1923 {
1. Annual Meeting
 2. Enlarged Journal
 3. Legal Defense
 4. Survey of the U. of M. Hospital
 5. A. M. A. Membership
 6. Public Lectures
 7. Aid to County Programs
 8. Active Committees Civic Relations Health Tuberculosis
 9. District Conferences
 10. Post Graduate Clinics
 11. Joint Committee
 12. Legislation

1928

1. Annual Meeting
2. Enlarged Journal
3. Legal Defense
4. Survey of the U. of M. Hospital
5. A. M. A. Membership
6. Public Lectures
7. Aid to County Programs
8. Active Committees
Civic Relations
Health
Tuberculosis
9. District Conferences
10. Post Graduate Clinics
11. Joint Committee
12. Legislation
13. High School Lectures
14. Insurance Fees
15. Special Representation in New Proposals

1931
1932

1. Annual Meeting
2. Legal Defense
3. Larger Journal
4. District Clinical Conferences
5. Post Graduate Courses
6. Joint Committee
7. Civic Relations Committee
8. Legislation
9. History
10. Survey of Medical Agencies
11. Radio Talks
12. County Health Units
13. Endowment Foundation
14. Kellogg Fund
15. Children's Fund
16. Crippled Children's Commission
17. Cancer Committee
18. Community Health Problems
19. Liaison with Special Organizations
20. Joint Activity with Postgraduate Dept. of University of Michigan
21. Information and Aid Bureau
22. Public Press
23. Industrial Relations
24. Poliomyelitis Commission

Your State Society is your Representative in these Contacts and Activities. It conserves your interests and enhances your welfare. It relieves you of annoying details and conserves your time in these and many other ways. These **ANNUAL BENEFITS** are yours for less than three cents a day Membership Dues.

No Licensed Reputable Physician Is Justified in Not Holding Membership.

Support your Organization and bring in your Neighbor who is not a Member.

SOCIETY ACTIVITY

JOINT COMMITTEE MEETING

The Joint Committee will convene at the Michigan Union in Ann Arbor on February 4, 1932, at 12:00 noon Eastern Standard Time.

A. V. WENGER, TREASURER

At the January Council meeting Dr. John R. Rogers resigned as treasurer of our Society and Dr. Aaron Verne Wenger of Grand Rapids was elected as his successor. Dr. Rogers' services were suitably recognized by a resolution of appreciation adopted by the Council.

Dr. Wenger is well known and popular with the profession not only of his home city, but also of the state. He has been in practice for thirty-one years. He is an ex-president of his county society and has represented it for many years in the House of Delegates.

As custodian of the Society's financial reserves, "Verne," as he is companionably known, will be a diligent "watch dog" of our treasury.

REDUCTION OF DUES

It was but natural in these times, when corners are being cut, that requests for reduction in dues should be forthcoming. There may be reasons for the request being granted. There are also opposing reasons. Some of these have been set forth in the Secretary's annual report.

Our dues are not taxes; they are privilege fees for which a member receives definite benefits and privileges. His dividends are handsome returns upon this relatively small monetary sum. Few members appreciate this. In order that they might better visualize the outstanding benefits, a series of charts was printed in the January Journal.

Our dues are fixed by our by-laws. Only the House of Delegates has power to amend the by-laws. The council has the power to appropriate money from the funds of which it is custodian.

Sympathetic with the requests, desirous of stretching a point and wishing to render assistance, the Council, at its January meeting, cut expenses to the fullest limit and re-

duced salaries. By resolution it instructed the Secretary to rebate \$2.50 of each member's dues and to charge the rebate to the contingent funds of the Society. Notice of this action was promptly mailed to each county secretary.

This action provides that your 1932 dues will be \$7.50 *provided they are paid by April 1*. In order to participate in this emergency benefit remit your current dues to your County Secretary today.

POST-GRADUATE CONFERENCES

Members are urged to watch for the announcement that will appear in the March Journal imparting the schedules of the Post-Graduate clinics that will be conducted by the Society and the Department of Post-Graduate Medicine of the University of Michigan during the early summer months.

A splendid program of clinical instruction is being prepared. These clinics and these instruction courses will afford our members an unsurpassed opportunity to pursue work in special fields of medicine.

Should any member be desirous of receiving advance information, in order that he may plan his absence from practice, he may obtain this information by writing direct to the Director of the Department of Post-Graduate Medicine, University of Michigan, University Hospital, Ann Arbor, Michigan.

PATERNALISM

WALTER F. DONALDSON, M.D., Secretary
Medical Society of Pennsylvania,
PITTSBURGH, PENNSYLVANIA

Lest we be justly accused of rendering in-expert judgment on an expert subject, we shall limit our comments on paternalism to its influence upon medical practice and the health of the people.

It has been said that investigation offers the most fertile field for paternalism, and that paternalism gives advice but does not take it. That these statements are true may easily be established in the enormous mass of statistics constantly available on disease and injury, and the reams of generalized sickness advice at the disposal of the paid investigator and the subsidized propagandist.

We physicians are frankly critical of those who advocate a paternalistic control of the entire field of the practice of medi-

cine, but can be charitable toward their exuberance, since we believe they fail to observe that our modern social machinery is so very complicated that what we may do at one point is sure to have unforeseen consequences that may do great damage at other points.

Sociologists and socialists, advocating the application of wholesale methods to that which remains fundamentally an individual problem, fail to realize that while health is a public interest, its promotion may be best achieved by the trained physician in public or private practice. While the relief of sickness is the outstanding concern of humanity, generalization in attempts at sickness relief may prove dangerous.

Under our Federal Government at present there are six bureaus in four departments that deal intimately with health, and both Congress and the President have to date been unable to eliminate consequent overlapping and ill-advised duplication of functions. Consider child health as the concern of four separate Federal bureaus, and every bureau as a nest of job holders, and you may at a glance recognize the reason for failure to abolish or consolidate superfluous bureaus.

Admitting that Government should maintain quarantine regulations, we protest against its entering the practice of obstetrics and pediatrics. Urging that Government should make every provision for the rehabilitation, the comfort, and the security of our war veterans who suffer as the result of their war service, we writhe under the paternalism that provides free hospitalization and treatment to veterans for present-day needs in no way related to their war service and without consideration of their ability to pay local physicians and hospitals.

In spite of established paternalistic forms of medical practice, we believe that certain forms of private group medical practice will justify their continuance, and that many physicians will continue in private practice, rendering the type of medical service peculiar to the progressive physician who always brings his best endeavors to bear upon "his patient," be the latter rich or poor. Our protest is against the entrance of government-supported forms of practice into competition with our local hospitals, local groups and private practitioners. The spectacle of private physicians contributing through their

income tax payments to the upkeep of government-supported physicians, who treat free of charge the civil life ailments of the prosperous neighbors of the private physician, should be abhorrent to all.

Might not our organized medical profession assume at this time national leadership in restoring the traditional American policy that the people support the Government, not the Government the people, by converting the American Legion and Congress to abandonment of the policy of erecting, equipping, "staffing" and maintaining additional veterans' hospitals. Adoption of the current plan of the American Medical Association for the use of existing local facilities for home or hospital treatment of the more acute ailments of many veterans, at a saving of hundreds of millions of dollars to taxpayers, might awaken our people to the growing menace of paternalism.

Since physicians represent that first group of citizens whose economic welfare is seriously threatened by this form of paternalism, and since they compose one of the few remaining individualistic professions, it is the duty of physicians to become politically conscious. Every state and county medical society should be active this winter in the campaign to eliminate unfair Federal competition with private medical and hospital practice.

Paternalists and bureaucrats give no thought to the pauperization and the weakening of public morale engendered by bestowing the right to free medical service upon those who are not eligible for charity.

THE MUSKEGON PLAN

THIS AGREEMENT, made as of the.....day of December, A. D. 1931, by and between the County of Muskegon, Michigan, as party of the first part, Medical Participating Association, as party of the second part, Hackley Hospital, a Michigan Corporation, as party of the third part, and Mercy Hospital of Muskegon, Michigan, a Michigan Corporation, as party of the fourth part;

Witnesseth as follows:

WHEREAS, the County of Muskegon has been sending to the University Hospital at Ann Arbor, Michigan, for medical, surgical and hospital care persons who are deformed who need operative attention, pregnant women and persons who are ill, none of such persons having funds of their own to secure such treatment and care, and

WHEREAS, the County of Muskegon has been paying large sums of money for the various items that go with the care of persons so afflicted, and for such other items as transporting the patients to and from Ann Arbor, Michigan, and

WHEREAS, certain members of the Muskegon County Medical Society did present to the Board of

Supervisors of Muskegon County, at its October, 1931, session, a plan that they in co-operation with the two hospitals in the city of Muskegon, Michigan, would take over the care and treatment of such indigent persons as have been heretofore sent to Ann Arbor for treatment, and

WHEREAS, the said Board of Supervisors did appoint a committee to study said proposal, to investigate the matter, and if satisfied that the plan would be beneficial to the people of Muskegon County, that said committee had power to act, to accept said proposal so made and that the County would enter into contract for a term of one year with the parties to the proposal, now, therefore

It is agreed as follows by and between the parties hereto, as their respective contractual obligations are herein enumerated and each of the parties hereto agrees to and with each other that they will comply with all of the obligations herein set forth as applying to each particular party.

COUNTY OF MUSKEGON

The County of Muskegon, otherwise designated herein as party of the first part, agrees that for and in consideration of the performance by the other parties hereto of the obligations undertaken by them herein, that it will pay to the Medical Participating Association, the sum of \$10,000.00 for the care and treatment of 200 indigent persons admitted to Hackley and Mercy Hospitals of Muskegon, Michigan, in the aggregate, by order of the Probate Court of Muskegon County, and should less than 200 persons be so admitted to said hospitals in the aggregate, that then it will pay a sum of money equal to the quotient obtained by dividing the figures 200 into the figures \$10,000.00 and then multiplying such quotient by the number of patients admitted to the hospitals of the parties of the third and fourth part hereto, and should more than 200 patients be admitted to said hospitals by the Probate Court for Muskegon County, then said first party shall pay such sum in addition to the sum of \$10,000.00 as is represented by dividing the figures 200 into the figures \$10,000.00 and multiplying the quotient by the number of patients so admitted to said hospitals. The said sums of money shall be payable and payment shall be made by the proper disbursing officers of Muskegon County, Michigan, as follows: on April 1, 1932, upon presentation to the proper disbursing officers of Muskegon County of a statement showing the number of patients admitted to said hospitals by the Probate Court as indigent persons, such proportion of \$10,000.00 as the number of patients so admitted during said first quarter of 1932 shall bear to the figures 200 and \$10,000.00, in the manner of computation herein set forth, and in like manner on July 1, 1932, payment shall be made for all persons admitted during the second quarter of 1932 and in like manner on October 1, 1932, payment shall be made for patients admitted during the third quarter of 1932 and on January 1, 1933, payment shall be made for all patients admitted during the fourth quarter of 1932, which said several sums of money when received by the said party of the second part hereto shall be in full payment for all services performed by said party of the second part to this agreement for the year 1932.

The said party of the first part further agrees that it will pay to each of the parties of the third and fourth part hereto, respectively, the sum of \$4.50 per day for each patient admitted to such hospital for such time as they are confined therein under directions from the party of the second part hereto. It is understood that this said sum of \$4.50 per day shall include all regular hospital care and attention or any treatment ordered by the said second party hereto except it shall not include the services of

special nurses, the furnishing of shoes, braces, crutches or glasses or the furnishing of serums or ambulance charges.

The said party of the first part hereto agrees to pay to the said parties of the third and fourth part hereto their statements of account for all patients admitted to said hospital during any month, on the first day of the month next succeeding the admittance of said patient to the hospital, which payment shall include all services rendered by the parties of the third and fourth part hereto to patients during the period the statement of account covers, and the proper disbursing officers of the said party of the first part shall pay said statements at the time herein fixed upon presentation to them of itemized statement of charges and accounts.

The said party of the first part hereby consents to the admittance to the said hospitals of all patients who can be successfully treated and cared for in the Muskegon Hospitals by the Muskegon physicians and surgeons under this agreement.

MEDICAL PARTICIPATING ASSOCIATION

The Medical Participating Association, the second party to this agreement, is an Association made up of various members of the Muskegon County Medical Society who have agreed to enter into this contract with the parties of the first, third and fourth part.

The said party of the second part further agrees that for and in consideration of the several sums of money to be paid by the party of the first part hereto, that said Association through its members will furnish all necessary medical and surgical care, skill and treatment to the persons admitted to the hospitals of the parties of the third and fourth part hereto.

The party of the second part further agrees that they will appoint a Director and an Assistant Director who shall see all patients admitted to the Muskegon Hospitals and assign said patients to such physician or surgeon as his or her case may require. The party of the second part further agrees that the said Director will keep a record of all patients so admitted to the Muskegon Hospitals by the Probate Court of Muskegon County. The said party of the second part further agrees that the Director will watch the progress of the treatment of cases in the hospitals, with the object of securing additional treatment if necessary, and with a further object of not keeping patients in the hospitals longer than their condition warrants.

The said party of the second part further agrees that its members will not order any extra service or medicine not covered by the day rate with the hospitals without first obtaining the written consent of the Director or the Assistant Director of the Association.

The said party of the second part further agrees that when a patient leaves the hospital and is in need of further care then the member thereof having the patient in charge in the hospital will attend said patient in the out-patient department of the hospital in which said patient was confined, and in case of surgical patients who are not able to come to the out-patient department, that then the member having such case will visit the home of the patient to give care and treatment until such patient is able to come to the out-patient department of the hospital in which such patient was confined without additional charge.

The party of the second part further agrees that the members thereof will devote their best efforts and skill to alleviate the ills, sufferings and medical or surgical needs of the patients they are treating and that they will make every effort within their ability to handle cases assigned to them, and will not refer cases back to the Probate Court of Muske-

gon County for assignment elsewhere unless the same be necessary for the better care and treatment of the patient.

THE MUSKEGON HOSPITALS

Hackley Hospital of Muskegon, Michigan, and Mercy Hospital of Muskegon, Michigan, the parties of the third and fourth part hereto, hereby agree to and with the parties of the first and second part and particularly with the party of the first part that they will receive and take in all of the patients sent to them by the Probate Court for Muskegon County, provided, however, that no patient will be received until such patient has been examined by some physician practicing in Muskegon County so that no person with a contagious disease would be offered for admission to said hospital. The parties of the third and fourth part for and in consideration of the sending of the patients in the classes provided for herein do agree that they will make a flat charge of \$4.50 per day for the care and treatment of such patients for each day that said patient is confined to said hospital, and further the said sum of \$4.50 per day is to include board, room, radium and all routine charges made or incurred in the care and treatment of the patient except that it does not include the services of special nurses, the furnishing of shoes, braces, crutches, glasses, serums or ambulance charges, which said items herein excepted are declared to be extras and are to be paid by the said party of the first part when statements of account are presented as hereinbefore and hereafter set forth. The parties of the third and fourth part further agree that if in the judgment of the Director selected by the said party of the second part that a patient will make better progress in a private room, that then they will place said patient in a private room.

The said parties of the third and fourth part further agree that they will open and maintain an out-patient department for the care and treatment of patients who have been cared for in the hospital and who no longer need hospital care and that such patients may come to said out-patient department for dressings and other needed medical care which is supplemental to the treatment given said patient in the hospital and necessary to bring about recovery, and for such service the said parties of the third and fourth part agree to make a flat charge of \$0.50 per day per patient, to be paid by said first party.

The said parties of the third and fourth part further agree that on the first day of any month they will present to the disbursing officers of the said party of the first part an itemized statement of all services rendered under this contract to patients during the preceding month, which statement shall include the day rate and any extras charged against any particular case, and further agree to furnish such additional information as the party of the first part may require for the auditing of said statements of account.

All of the parties hereto agree that this contract shall remain in full force and effect for the term of one year from and after the first day of January, 1932.

The party of the first part has caused the presents to be signed by its proper contracting officials, by authority of a resolution of its Board of Supervisors, to-wit, the Chairman of said Board of Supervisors and the Clerk of the County of Muskegon; the said second party has caused these presents to be signed by the Chairman and Secretary of its Board of Trustees who have been given authority so to do by appropriate Association action; the party of the third part has caused these presents to be signed by the President of its Board of Trustees and also the Secretary thereof and has affixed hereto

its corporate seal; and the party of the fourth part has caused these presents to be signed by its President and its Secretary and has affixed hereto its corporate seal, and the execution of this contract by the parties of the third and fourth part has been approved by their Board of Directors, all on the day and year first above written.

COUNTY OF MUSKEGON

By.....
Chairman of Board of Supervisors

ATTEST:

.....
Clerk, Board of Supervisors

MEDICAL PARTICIPATING ASSOCIATION

By.....
Chairman of Board of Trustees

ATTEST:

.....
Its Secretary

HACKLEY HOSPITAL

By.....
President, Board of Trustees

ATTEST:

.....
Its Secretary

MERCY HOSPITAL OF MUSKEGON, MICHIGAN

By.....
President

ATTEST:

.....
Its Secretary

MINUTES OF THE SPECIAL MEETING ON SURVEY OF MEDICAL HEALTH AGENCIES IN MICHIGAN

The committee met in the Statler Hotel at six o'clock on January 7, 1932, and was called to order by the Chairman, Dr. W. H. Marshall. The following committee members were present:

W. H. Marshall, Chairman

F. A. Baker

L. G. Christian

B. U. Estabrook

C. S. Gorsline

F. C. Warnshuis

1. The minutes of the last meeting of the committee were read and approved.

2. The committee then resolved itself in informal discussion of the draft of the report to be made to the House of Delegates. The portions assigned and the special subjects delegated to committee members were presented by the individual members and were accorded the consideration and discussion of all the committee members.

3. Upon motion of Baker-Estabrook, the outlined sections of the report as discussed were approved.

4. Upon motion of Gorsline-Christian, the members of the committee agreed to send their sections to the Secretary for compilation into a general report.

5. Upon motion of Christian-Estabrook, the compiled report is to be mailed to each member as soon as possible and at the special meeting of the House of Delegates a member would read that portion of the report which had been assigned to him with the introduction and the summary to be presented by the Chairman of the committee.

6. After considerable discussion of certain factors involved in the survey the committee adjourned at 9:30 P. M.

F. C. WARNSHUIS,
Secretary.

MINUTES OF THE MID-WINTER SESSION OF THE COUNCIL OF THE MICHIGAN STATE MEDICAL SOCIETY

The Council of the Michigan State Medical Society met in regular mid-winter session at the Hotel Statler in Detroit at 10:00 A. M. on January 8, 1932. The Council was called to order by the Chairman, Dr. Corbus, with the following councillors present:

B. R. Corbus, Chairman, Henry Cook, George C. Hafford, C. E. Boys, T. F. Heavenrich, Julius Powers, Harlen MacMullen, Paul R. Urmston, George L. LeFevre, Richard Burke, B. H. VanLeuven, J. D. Bruce, C. A. Neafie, A. S. Brunk, Henry R. Carstens.

Carl F. Moll, President; J. H. Dempster, Editor; W. J. Stapleton, Jr., Chairman Medicol-legal Committee; F. C. Warnshuis, Secretary.

1. The Secretary presented his annual report as follows:

SECRETARY'S 1931 ANNUAL BUDGET

To the Council
Michigan State Medical Society
Gentlemen:

Mindful of the trust involved I respectfully submit to you and through you to the members my annual report for 1931.

FINANCIAL

Appended hereto is the Auditor's financial report supplemented by my itemization of the receipts and expenditures of funds.

FINANCIAL COMMENT

It is with considerable pride that this financial statement is submitted because of the showing it imparts. The following comments are pertinent:

- A. Our net loss is \$1,911.16.
- B. Our advertising income exceeded our estimate by \$331.38.
- C. Our income from dues was \$1,157.75 less than 1930 with 335 delinquent members.
- D. Our Investment depreciation is but \$11,544.70.
- E. Our Journal cost is \$525.26 less than 1930.
- F. We incurred emergency expenses of \$1,000 to the Infantile Commission; \$371.00 for new lanterns and \$666.87 for viewing boxes, a total of \$2,037.87 for additional expenses.
- G. Council, Society, American Medical Association Delegates and Post Graduate Conferences expenses were increased.
- H. Dues, subscriptions, advertising incomes were less than in 1930.

After a careful review, computation and consideration of involved conditions the budget for 1932 represents a sound estimate. Based on experiences gained in past years it is my opinion that the following budget reflects a dependable financial estimate to govern 1932 finances.

BUDGET 1932

<i>Income</i>	
3,100 members' dues at \$10.00.....	\$31,000.00
Interest on investments.....	1,500.00
	\$32,500.00

Expenditures

Defense Account—3,100 at \$1.00.....	\$ 3,100.00
Journal Subscriptions, 3,100 at \$2.50.....	7,750.00
Rent, light, telephone, power.....	1,800.00
Annual Meeting.....	1,000.00
Post Graduate Conferences.....	2,000.00
Committee Expenses.....	1,500.00
Council Expenses.....	1,500.00
Printing and Postage.....	400.00
Joint Committee.....	250.00
Delegates to American Medical Association.....	500.00
Stenographic Services.....	3,000.00
Secretary.....	6,500.00
Contingent Fund.....	3,200.00
	\$32,500.00

This is estimated on the assumption that dues will be received from 3,100 members and that the Society will carry by notes some 500 members for one year.

JOURNAL BUDGET

<i>Income</i>	
Subscriptions.....	\$ 7,750.00
Advertising.....	8,000.00
	\$15,750.00

<i>Expense</i>	
Printing and Mailing.....	\$10,000.00
Editor's Salary.....	3,500.00
Editor's Expense.....	900.00
Contingent.....	1,350.00
	\$15,750.00

NOTE: Last year I estimated advertising revenue of \$8,500.00—our revenue was \$8,849.23. An estimate of \$8,000.00 for 1932 is conservative. Our Journal Cost was estimated at \$11,500 and was \$10,187.52. In estimating \$10,000.00 for 1932, I have not taken in consideration a printing saving of some \$500 to \$600 that will accrue from reduced contract price.

Considering these factors, it may well be concluded that the past year has witnessed the Society's financial stability satisfactorily maintained and its every activity sustained in fullest degree.

Dr. John R. Rogers, Treasurer, has advised your Secretary of his desire to be relieved from the duties of that office. Dr. Rogers has, for years, been most diligent, always accommodating and courteous and ever willing to contribute time from his busy practice to faithfully perform his official duties. Your Secretary appreciatively acknowledges Dr. Rogers' helpful assistance and recommends that the Council recognize his service in a suitable manner.

DEFERRED PAYMENT OF DUES

Complying with the action of the House of Delegates and the Council, a new account of Notes Receivable will be opened. Blank notes have been supplied to County Secretaries.

THE JOURNAL

The business affairs of the Journal are in a satisfactory condition. An advertising income of \$8,849.23 for the year exceeded our expectations when so many business firms have been curtailing advertising expenditures. One is, however, unable to foretell what our experiences will be this coming year. Our contacts cause us to believe that if present financial conditions continue we will encounter at least a 33⅓ per cent decrease in advertising income. The cancellation of several contracts during the past sixty days is indicative of added curtailment on the part of advertisers.

An increased advertising income of at least \$5,000 is obtainable if the Council and all our members would but subscribe coöperative support by patronizing our Journal advertisers. Firms advertise for the purpose of securing business, as well as

to impart information pertaining to their products. They do not purchase space solely to make a contribution to our publication. Many of the advertisements contain coupons and others contain offers of samples and literature. Contracts are continued when business returns are received. When such returns are not received, contracts are cancelled. If our members would peruse the advertising pages of each issue and spend a few cents for postage, each month, to reply to advertisers, satisfactory proof of the advertising medium value of the Journal would be established and enlarged revenue would accrue. While not urging a boycott, it is recommended that, other things being equal, members limit their business to our advertisers. There are several Michigan firms who are valued patrons of the Journal. Give them preference in placing orders. Tell the salesman who calls on you that you are placing your business with Journal advertisers. If this cooperation and response is exhibited, our advertising income will be maintained and increased.

Our business relationships with the Bruce Publishing Company have been exceedingly pleasant and satisfactory. Their typographical work is beyond criticism. The fullest degree of cooperation is constantly evidenced. Expressive of their interest and integrity, the President voluntarily advised your Secretary that the printing cost would be reduced thirty-five cents a page during 1932 and if further cost reductions were attainable a still greater reimbursement would be made. This gratifying proposal will produce a printing expense reduction for the year of from \$500 to \$600.

An added Journal cost has been encountered in the increased number of changes in addresses involving the making of new addressograph plates.

No charge has been made against the Journal account for correspondence and postage expense incurred in the Secretary's office in discharging the work entailed in the business management of the Journal.

SOCIETY MEMBERSHIP

On January 1, 1930, our total membership was 3,426. On December 31, 1931, our total paid membership was 3,235, with 335 delinquent members, a loss of 191 members.

Our County Society affiliations are as follows:

County	1930	1931	Loss	Gain	Un- paid	Deaths
Alpena	16	14	2	..	1	1
Antrim-Charlevoix	..	..	..	..	..	..
Emmet-Cheboygan	23	23	..	..	..	2
Barry	12	12	..	..	..	..
Bay	62	63	..	1	2	..
Berrien	44	42	2	..	8	1
Branch	11	12	..	1	1	..
Calhoun	117	112	5	..	2	2
Cass	10	11	..	1	..	..
Chippewa-Mackinac	15	15	..	..	1	1
Clinton	15	13	2	..	2	..
Delta	20	21	..	1	2	1
Dickinson-Iron	18	18	..	..	3	..
Eaton	20	16	4	..	..	..
Genesee	134	139	..	5	6	2
Gogebic	25	25	..	..	2	..
G. Traverse-Leelanau	27	25	2	..	2	..
Gratiot-Isabella-Clare	27	26	1	..	..	1
Hillsdale	20	22	..	2	..	1
Houghton	39	42	..	3	..	1
Huron	9	9	..	..	..	..
Ingham	98	94	4	..	1	5
Ionia-Montcalm	39	36	3	..	1	1
Jackson	77	76	1	..	5	..
Kalamazoo	111	120	..	9	..	3
Kent	201	200	1	..	18	1
Lapeer	19	24	..	5	1	..
Lenawee	34	33	1	..	3	1
Livingston	12	10	2	..	1	..
Luce	9	9	..	..	..	..
Macomb	39	34	5	..	6	1
Manistee	13	14	..	1	..	..
Marquette-Alger	34	33	1	..	2	2
Mason	11	10	1	..	2	..
Mecosta	19	20	..	1	2	..
Menominee	12	12	..	..	..	2

Midland	8	9	..	1	1	..
Monroe	35	33	2	..	2	..
Muskegon	68	68	..	..	..	2
Newaygo	10	10	..	..	..	..
Oceana	8	7	1	..	..	..
Oakland	104	93	11	..	22	..
Otsego-Montmorency	..	..	..	..	..	..
Crawford-Oscola	11	11	..	..	..	..
Roscommon-Ogemaw	..	..	..	..	..	..
Ontonagon	7	6	1	..	..	1
Ottawa	26	28	..	2	..	1
Saginaw	72	70	2	..	4	..
Sanilac	6	6	..	..	..	1
Schoolcraft	5	4	1	..	..	..
Shiawassee	39	30	9	..	1	..
St. Clair	44	46	..	2	3	3
St. Joseph	17	15	2	..	2	..
Tri	18	20	..	1	1	1
Tuscola	25	26	..	..	..	..
Washtenaw	111	119	..	8	6	2
Wayne	1,420	1,249	171	..	219	7
	3,426	3,235	237	46	335	50
	3,235	..	46	..	..	..
	191	..	191	..	..	..

DEATHS

The following deaths for 1931 are reported:

County	Name
Alpena	Samuel T. Bell
Northern Michigan	A. J. McKillop
Berrien	John Reycraft
Calhoun	D. A. Van Noppen Zwigtmann
Chippewa-Mackinac	E. L. Parmeter
Delta	Henry A. Shurtleff
Genesee	J. J. Griffin
Gratiot-Isabella-Clare	W. A. Lemire
Hillsdale	C. B. Burr
Houghton	Harry W. Knapp
Ingham	Michael F. Brondstetter
Ionia-Montcalm	W. H. Sawyer
Kalamazoo	Wm. H. Dodge
Kent	Chauncey L. Barber
Lenawee	R. Benner
Macomb	Ernest L. Martin
Marquette-Alger	F. N. Turner
Mecosta	L. N. Yerkes
Menominee	Wm. H. Lester
Muskegon	F. B. Crowell
Ontonagon	A. L. Van Horn
Ottawa	Francis J. Welsh
Sanilac	Frank C. Kinsey
St. Clair	H. L. Older
Tri	Michael C. Cronin
Tuscola	John H. Andrus
Washtenaw	Alfred Hornbogen
Wayne	C. W. Bunce
	M. L. Teeple
	Calvin R. Elwood
	David R. Landsborough
	J. Bursma
	A. G. Burwell
	Wm. B. Hanna
	C. J. Abbott
	G. S. Tweedie
	C. C. Clancy
	W. H. Morris
	C. B. Stockwell
	O. L. Ricker
	C. W. Clark
	E. B. Kellogg
	Aldren Warthin
	Fred W. Baeslack
	H. A. Hagerty
	J. H. Hathaway
	Herbert J. Higgs
	John A. Miller
	Frank B. Tibbals
	Arthur Van Der Velpen

In tribute, your Secretary repeats what he was privileged to state at our Annual Meeting: Some went in the fullness of years. Others passed on in the midst of the promises of youth or middle life. They have been called to the Great Adventure which quickens us to make ready for that supreme event of human experience. Their responsibilities are now ours. May our deeds erect an enduring monument in their memory.

COUNTY SECRETARIES CONFERENCE

Existing conditions caused your Secretary to recommend to the Executive Committee that the Annual Conference of County Secretaries be post-

poned for one year. It was further recommended that sometime during February or March, Councilors arrange at a convenient place for personal conference with the Secretaries of their respective districts. Such district meetings will accord the Councilor an opportunity to discuss local conditions and problems. Each Councilor will be in a better position to make constructive and helpful recommendations to your body and to your officers. This recommendation was concurred in by the Executive Committee. Councilors may confidently look to this office for every possible assistance in their district problems and for service to their district members.

COMMITTEES

It is extremely inspiring to note and record the zeal and achievements of the several committees of the Society. These members are giving of their time, their thought and labor in discharging committee work. It is impossible to accord them sufficient praise and appreciation. Definite accomplishments are being attained—all of which is to the individual member's benefit and profit.

Committee reports and progress are imparted through the Journal. It is not necessary to enlarge upon their work at this time. Your Secretary does, however, urge County units and individual members to remain conversant with what our committees are achieving and to conform to their recommendations.

MEMBERSHIP BENEFITS

To enable our members to visualize and more fully realize and appreciate the benefits of membership and the varied activities that characterize our Society activities, your Secretary prepared five tables which were published in the January Journal.

We meet, from time to time, a member here and there who has none or but very little conception as to what his society is accomplishing. These members are, at times, inclined to deprecate their affiliation. It is hoped that these charts will convey convincingly that society affiliation is a doctor's greatest asset next to his license to practice.

SCIENTIFIC PROGRAMS

Our Post-Graduate and District Conference programs meet a definite need. We have, for several years, devoted a large amount of energy and funds developing this service to our members. These programs must, of course, be continued. However, it has been apparent for some time that providing assistance to County Societies in presenting scientific programs is an obligation that should now be assumed. We have about twenty-five county societies whose memberships range from ten to thirty. It is difficult for them to arrange a sustained scientific program. They merit assistance. The State Society can tender assistance in two ways: first, by sending speakers and, second, by gradually building up a film library and send out these teaching films. An investment of \$500 this year would be the means of initiating this program, and from my contacts I am sure County units will be grateful for this movement that will stimulate renewed interest in county meetings.

GENERAL ACTIVITIES

In the Council's Annual Report to the House of Delegates and in my reports, published from month to month in the Journal, I have imparted the details of all our activities during the year. Their repetition is eliminated at this time. It is believed that these monthly reports produce a greater realization of the Society's scope of work and the work that is being done in behalf of every member. With your approval this policy will be continued.

DUES

Forced, as most of us have been, to curtail our expenses it was but natural that the question of reduction of dues should be raised. Such suggestions are lacking in substantiating reasons, if one but pause to make a critical analysis.

Our dues are Ten Dollars per year. Several states have dues of from Fifteen to Twenty-five dollars per year. Our dues of ten dollars per year amounts to about three cents a day—the price of a daily paper. A suggested reduction to \$7.50 per year would give but a \$2.50 saving a year, or not quite three-quarters of a cent per day. This saving of \$2.50 a year or $\frac{3}{4}$ cent per day will not enable one to obtain relief in office expense or allay hunger.

On the other hand, such a reduction would create a lessened society income of some \$8,500 compelling total abandonment of some of our important activities.

In these times, more than at any other time, there is need for our Society to be intensely alert to a member's interest and to protect his future. In place of curtailment our work should be expanded and our efforts increased. To hobble such activities by financial restrictions is unsound and unwise at this time.

There are economies that are wise and indicated. The reverse would be true should a reduction of dues be accomplished. Our annual dues are fixed by the By-Laws. The House of Delegates is the only body that can amend these By-Laws.

Your Secretary is not entering into an argumentative discussion. I seek only to present guiding facts. The cry of reduction of taxes heard in governmental and legislative halls is quite pertinent at the present time and tax reform may well be initiated. But our dues are not taxes and should not be looked upon as such.

In reality, our dues are privilege fees from which each member derives privileges and benefits in degree and value far in excess of the monetary amount involved. If these benefits are to continue and be increased and enhanced as our history continuously records there can be no reduction, for to do so would be to place an obstructing barrier that would arrest progress.

ANNUAL MEETING

Attention is directed to the mounting cost of our annual sessions. Two factors are accountable. One, lessened revenue from commercial exhibits due to retrenchment on the part of business firms. Secondly, for the past three years we have been paying from four hundred to seven hundred dollars for rental of auditoriums. This, I feel, is wholly unreasonable. There is but one way to end these rental rates and that is to hold our meetings in cities where auditoriums are made available without cost.

MEDICO-LEGAL DEFENSE

Malpractice suits, the majority without merit, are being instituted against members in increasing numbers. In these times we cannot look for their abatement. Large verdicts are being rendered. Within the month two verdicts of \$13,000 were rendered in one county with four more cases pending and all instituted by one firm of attorneys. Within the month there has been a conference of insurance officials to consider raising the premium rates \$10.00 per policy. If our members obtained no other benefit from their dues, the efficient services rendered by our Medico-Legal committee would be handsome returns. Until one has had a suit filed against him, he does not appreciate the legal assistance that comes to his aid and the protection that is accorded.

In place of reducing dues, I recommend the con-

sideration of increasing them to \$15.00 or \$20.00 per year. Of this assessment, five or ten dollars should be placed in a reserve fund for payment of judgment benefits. I am of the opinion that the legal features of such a plan can be surmounted. If this is accomplished then members can cancel their policies, thereby producing an annual saving for each member of twenty to thirty dollars per year.

EXPENSE ACCOUNTS

The Society justly reimburses members for expenses incurred in discharging committee duties or when transacting society business. It is highly desirable that a uniform schedule for expense accounts be approved. The following schedule is suggested:

Mileage, six cents per mile one way.
Eight dollars per day for room and meals.
Single meals, \$1.50.
Incidentals, \$1.00 per day.
Actual railroad and pullman fare when traveling by train or bus.

With your approval, a uniform account statement will be provided for the rendering of expense accounts.

RECOMMENDATIONS

The following recommendations are respectfully submitted for consideration and the issuance of instructions:

1. That the Legislative Committee be requested to promptly institute a conference or conferences with the commission on Medical Legislation appointed by the legislature in order that an agreement may be reached upon legislation to be recommended to the new legislature. That in the determination of legislative policies the Committee secure the cooperating support and advice of every county society through the Secretary's office.
2. That a uniform expense account schedule be adopted.
3. That the Secretary be instructed to investigate the legal factors related to creating a Medico-Legal Judgment Fund and report his findings to the Council for transmission to the House of Delegates.
4. That book reviews in the Journal be limited to publishers who advertise in the Journal. At present publishers receive valuable space at an annual expense to the Journal of approximately \$200 to \$250.00 per year. Were this space paid for at advertising rates, the annual income would be about \$1,500.
5. That expenses of but one invited guest be allowed to each scientific section and not to exceed \$100.00.

CONCLUSIONS

As a society today we are standing upon the highest mountain peak that we have ever attained. As we look back over the road of years we can discern certain peaks that lie down and beyond in that great range of time. They stand out and mark certain epochs, certain achievements in the history of our society. They are enduring monuments to which we point with pride and satisfaction. Today, just as truly as in the past, on the present mountain peak we are recording an epoch in our Society History. Our individual and collective judgment sanely exercised and wisely applied will determine whether it will erupt, destroy itself and leave a volcanic crater with dark abyssal depths. It is for us, the present day members, to determine whether posterity, looking back over the battlements of heaven and time, shall approve our actions this year and point with pride to this epochal mountain peak, or blushing with chagrin appraise our acts, in this era of world unrest, as having failed to be consistent with the sacred traditions of the profession.

My plea is that we recognize the present distracting conditions, that we approach the pressing problems with calm, deliberative judgment while we formulate our guiding plans and policies in order that it may be said after the years have passed: "They stood the test."

Respectfully submitted,
F. C. WARNSHUIS, Secretary.

January 5, 1932.

Michigan State Medical Society,
Grand Rapids, Michigan.
Gentlemen:

We have examined the accounts of the Michigan State Medical Society for the year ended December 29, 1931.

In addition to an examination of the accounts pertaining to the assets and liabilities of the Society at December 29, 1931, we have reviewed the operating accounts and have made a test check of the recorded cash transactions for the year then ended. The scope of our work and the extent of the detailed records examined are outlined in later sections of this report.

The Society was incorporated in June, 1910, under the Michigan Act providing for the incorporation of associations not for pecuniary profit. The purpose of the Society is the federation and protection of members of the medical profession and the extension of medical knowledge.

FINANCIAL ANALYSIS

A balance sheet is included herein which, in our opinion, shows the financial position of the Society as of December 29, 1931, on the basis outlined in this report. The following affords a comparison of the assets and liabilities at the beginning and end of the fiscal year:

Assets

	Dec. 29, 1931	Dec. 29, 1930	Increase Decrease
Cash on deposit.....		\$ 380.74	\$ 380.74
Notes and accounts receivable, less allowance for doubtful	\$ 985.07	1,622.33	677.26
Due from Children's Fund of Michigan		1,500.00	1,500.00
Securities:			
Bonds (at cost) plus unclipped coupons	\$43,518.75	\$46,225.55	\$ 2,706.80
Less allowance to reduce to approximate market value	16,159.25	4,614.55	11,544.70
	\$27,359.50	\$41,611.00	\$14,251.50
Contract for medical history..	3,000.00	4,500.00	1,500.00
	\$31,344.57	\$49,654.07	\$18,309.50

Liabilities

Bank overdraft	\$ 12.87		\$ 12.87
Accounts payable:			
For services, etc.....	1,483.71	\$ 1,500.00	16.29
To Joint Committee on Public Health Education	1,037.41	2,111.85	1,074.44
To Couzens' Foundation.....	468.31	1,775.46	1,307.15
Advances for reprints and advertiser's credit balance	145.76	51.00	94.76
	\$ 3,135.19	\$ 5,438.31	\$ 2,303.12
Reserves:			
For Medico Legal Defense Fund	\$11,575.17	\$19,394.06	\$ 7,818.89
For medical history.....	3,000.00	4,500.00	1,500.00
	\$14,575.17	\$23,894.06	\$ 9,318.89
Net worth	13,621.34	20,321.70	6,700.36
	\$31,344.57	\$49,654.07	\$18,309.50

Advertisers' accounts receivable in the amount of \$1,025.07 were analyzed according to age and are summarized as follows:

	Date of Charge Dec. 29, 1931		Dec. 29, 1930	
	Amount	Per cent	Amount	Per cent
December	\$ 690.99	67.41%	\$ 738.17	64.06%
October and November.....	100.00	9.75	53.75	4.66
July, August and September	97.50	9.51	36.00	3.12
January 1 to June 30.....	66.08	6.45	206.41	17.92
Prior to January 1.....	70.50	6.88	118.00	10.24
TOTAL	\$1,025.07	100.00%	\$1,152.33	100.00%

Subscriptions for medical history represent, for the most part, amounts due for copies of the history delivered during the year 1930.

Based upon our analysis of the accounts and conference with your Secretary, it is our opinion that the allowance in the amount of \$250.00 is sufficient to cover any losses from uncollectible accounts anticipated at December 29, 1931.

A schedule included hereinafter sets forth the par value, cost and approximate market value of the bonds owned by the Society at December 29, 1931. The market values shown are based upon December 29 closing market quotations for listed securities and upon information obtained from brokers relative to the most recent bid or sales prices on unlisted bonds. An allowance in the amount of \$16,159.25 has been provided to reduce the book value of the bonds to the approximate market value at December 29, 1931. A portion of the foregoing allowance, in the amount of \$6,755.50, represents the shrinkage in market value of bonds set aside as property of the Medico Legal Defense Fund and was accordingly charged against the account carried with that fund on the books of the Society.

The Contract for medical history, in the amount of \$3,000.00, represents the unliquidated portion of a contract between the Society and the Bruce Publishing Company for 750 sets of the medical history at \$10.00 each. A reserve, in the amount of \$7,500.00, representing the maximum liability under this contract was established in 1930 in accordance with a resolution passed by the Council on September 14, 1930. During the fiscal year 1931, the Society paid \$1,500.00 on this contract, making a total of \$4,500.00 paid to date and leaving an unpaid balance of \$3,000.00. Data examined by us indicates that the Bruce Publishing Company undertook the publication of this history on a profit-sharing basis and that, at the present time, there is no further legal liability of the Society therefor. Approximately 323 sets of the history have been delivered to date, leaving approximately 127 sets paid for by the Society but undelivered at December 29, 1931. Owing to the small number of histories sold during the fiscal year 1931 and the uncertainty of future sales, no consideration has been given herein to the contingent asset represented by these unsold histories.

Provision has been made, as far as we could ascertain, for all known liabilities of the Society at December 29, 1931.

Schedules included hereinafter set forth summaries of the recorded transactions affecting the funds of the Joint Committee on Public Health Education and the Couzens' Foundation which were handled by the Society during the fiscal year and the liability of the Society to those organizations at December 29, 1931.

Fifteen per cent of the membership fees collected are appropriated for the Medico Legal Defense Fund. A summary of the changes affecting this fund during the fiscal year is included herein, showing a net reduction of \$7,818.89, of which \$6,755.50 represents a provision for shrinkage in the market value of its bonds, as hereinbefore explained.

The net worth of the Society decreased \$6,700.36 during the fiscal year, of which \$1,911.16 represents

the excess of expenses over income and \$4,789.20 is due to an additional provision for the reduction of bonds owned to approximate market value.

Surety bonds in favor of the Society in the amounts of \$25,000.00 and \$10,000.00 covering Dr. John R. Rogers and Dr. F. C. Warnshuis, respectively, were examined by us.

OPERATIONS

We present elsewhere in this report a statement of income and expense, setting forth the results from operations for the year ended December 29, 1931. The scope of our examination in connection with the preparation of this statement consisted of test checks of the data entering into the cash and operating transactions as hereinafter outlined. A comparison of the income and expenses for the fiscal years ended December 29, 1930, and December 29, 1931, is shown in an exhibit included hereinafter, from which the following summary is taken:

	Fiscal Year Ended		Increase
	Dec. 29, 1931	Dec. 29, 1930	
Memberships, dues and journal subscriptions.....	\$27,216.32	\$28,834.60	\$1,618.28
Advertising and reprint sales.....	10,318.01	11,108.22	790.21
Sales of medical history.....	228.00	3,045.00	2,817.00
Interest and profit on securities	1,699.90	1,844.99	145.09
Total Income	\$39,462.23	\$44,832.81	\$5,370.58
Expenses	41,373.39	42,316.56	943.17
Net Deficit or Income.....	\$ 1,911.16	\$ 2,516.25	\$ 4,427.41

SCOPE OF EXAMINATION

The scope and nature of our examination are outlined in the following comments:

The recorded cash receipts during the fiscal year were traced to the bank deposits shown by the bank statements on hand in the Society's files. The recorded cash disbursements for two months during the year, selected at random were found, with minor exceptions, to be supported by canceled checks, invoices, etc.

Members' notes receivable were examined by us. Advertisers' accounts and subscriptions for medical history were found to be in agreement with a trial balance of the individual accounts. Advertisers' accounts were analyzed as to age, as hereinbefore outlined, but we did not correspond with the recorded debtors to verify the unpaid balances shown.

Bonds owned by the Society were inspected by us on December 30, 1931, and the approximate market values thereof were computed as previously outlined.

The bank overdraft was verified by direct correspondence with the Society's depository and reconciliation of the balance reported by it with the overdraft shown herein.

Accounts payable were found to be in agreement with a trial balance of unpaid invoices in the Society's files.

In addition to a test of the cash transactions as heretofore outlined, membership fees, journal subscriptions and dues credited to the Medico Legal Defense Fund were tested by comparison with the Society's membership records. Interest on investments belonging to the General Fund of the Society and the Medico Legal Defense Fund are credited as received and were proved by comparison with a summary of the interest coupons maturing during the fiscal year. Major items entering into the various expense accounts were investigated by us and all items so examined were found to be in order.

Very truly yours,

ERNST & ERNST,
Certified Public Accountants.

BALANCE SHEET
MICHIGAN STATE MEDICAL SOCIETY
DECEMBER 29, 1931

Assets		
Notes and Accounts Receivable		
Members' notes	\$ 50.00	
Advertisers' accounts	1,025.07	
Subscriptions for medical history	160.00	
	\$ 1,235.07	
Less allowance for doubtful	250.00	
		\$ 985.07
Securities		
Bonds—at cost	\$43,518.75	
Less allowance to reduce to approximate market value	16,159.25	
		27,359.50
Contract		
For medical history	3,000.00	
		\$31,344.57
Liabilities		
Bank Overdraft		
Accounts Payable		
For services, etc.	\$ 1,483.71	
Joint Committee on Public Health Education	1,037.41	
Couzens' Foundation	468.31	
Advances made for reprints	95.75	
Advertiser's credit balance	50.01	
		3,135.19
Reserves		
For Medico Legal Defense Fund	\$11,575.17	
For medical history	3,000.00	
		14,575.17
Net Worth		
Balance at Dec. 30, 1930	\$20,321.70	
Deduct:		
Net deficit for the fiscal year ended Dec. 29, 1931	\$1,911.16	
Additional provision for reduction of bonds to market value	4,789.20	
	6,700.36	
		13,621.34
		\$31,344.57

This balance sheet is subject to the comments contained in this report.

INCOME AND EXPENSE
MICHIGAN STATE MEDICAL SOCIETY

	Fiscal Year Ended		Increase Decrease
	Dec. 29, 1931	Dec. 29, 1930	
Membership fees	\$19,087.00	\$20,214.75	\$1,127.75
Journal subscriptions	8,129.32	8,619.85	490.53
Advertising sales	8,849.23	9,180.55	331.32
Reprint sales	1,468.78	1,927.67	458.89
Interest on investments	1,699.90	1,744.99	45.09
Sales of medical history	228.00	3,045.00	2,817.00
Profit on sale of securities		100.00	100.00
Total Income	\$39,462.23	\$44,832.81	\$5,370.58

BONDS OWNED
MICHIGAN STATE MEDICAL SOCIETY
DECEMBER 29, 1931

	Interest Rate	Maturity	Par Value	Cost	Approximate Market Value
Medical Society—General Fund					
United Light and Power	5½%	1959	\$ 2,000.00	\$ 1,850.00	\$ 1,630.00
Peoples Light and Power Corporation	5½%	1941	1,000.00	970.00	300.00
Broadway Building—First Mortgage	6	1946	2,000.00	2,000.00	1,560.00
Pennsylvania Railroad Company	5	1964	3,000.00	3,093.75	2,310.00
Grand Rapids Affiliated Corporation	5	1955	6,000.00	6,000.00	5,400.00
National Electric Power Company	5	1978	5,000.00	4,725.00	1,900.00
Community Power and Light Company	5	1957	2,000.00	1,940.00	1,042.50
American Telephone and Telegraph Company	6	1935	2,000.00	2,120.00	1,930.00
Palmer Building Corporation	6	1935	2,000.00	2,000.00	2,000.00*
Herald Square Building	6	1948	2,000.00	2,000.00	600.00
Associated Gas and Electric Corporation	5	1950	2,000.00	1,800.00	745.00
New England Gas and Electric Company	5	1950	1,000.00	910.00	587.50
			\$30,000.00	\$29,408.75	\$20,005.00
Medico Legal Defense Fund					
Peoples Light and Power Corporation	5½%	1941	\$ 1,000.00	\$ 970.00	\$ 300.00
Grand Rapids Affiliated Corporation	5	1955	1,000.00	1,000.00	900.00
National Gas and Electric Corporation	6	(Matured Feb. 1, 1931) (Extended to Feb. 1, 1933)	2,400.00	2,400.00	192.00
New York Central Railroad Company	4	1998	2,000.00	1,930.00	1,375.00
Michigan Fuel and Light Company	6	1950	3,000.00	2,985.00	1,200.00
American Telephone and Telegraph	5	1965	2,000.00	1,990.00	1,920.00
International Telephone and Telegraph Company	5	1955	2,000.00	1,925.00	880.00
New England Gas and Electric Company	5	1950	1,000.00	910.00	587.50
			\$14,400.00	\$14,110.00	\$ 7,354.50
Total			\$44,400.00	\$43,518.75	\$27,359.50

*No market quotation available.

Expense

Secretary's salary	\$ 6,500.00	\$ 6,500.00	
Stenographers' salaries	3,016.00	2,905.00	\$ 111.00
Society expense	4,085.92	6,614.51	2,528.59
Office rent and telephone	1,800.00	1,200.00	600.00
Postage and printing	405.00	225.00	180.00
Editor's salary	3,500.00	3,500.00	
Journal expense	10,187.52	10,712.78	525.26
Editor's expense	854.24	860.88	6.64
Reprint expense	1,325.55	1,740.87	415.32
Council expense	2,036.91	1,795.17	241.74
Delegates to American Association	544.01	288.19	255.82
Legislative committee	2,630.87	258.85	2,372.02
Post graduate medical conference	769.62	352.41	417.21
Annual meeting	1,556.31	1,647.12	90.81
Publishing and editorial cost of medical history	1,609.84	3,715.78	2,105.94
Cancer committee and Health Agency survey	148.88		148.88
Civic and industrial relations committee	298.02		298.02
Radio committee	104.70		104.70
Total Expenses	\$41,373.39	\$42,316.56	\$ 943.17
Net Deficit or Income	\$ 1,911.16	\$ 2,516.25	\$4,427.41

SUMMARY OF INCOME AND DISBURSEMENTS—
JOINT COMMITTEE ON PUBLIC HEALTH
EDUCATION

MICHIGAN STATE MEDICAL SOCIETY
YEAR ENDED DECEMBER 29, 1931

Balance Due Joint Committee, Dec. 29, 1930

\$2,111.85

Income

Children's Fund of Michigan	\$1,500.00	
Detroit News	440.00	
University of Michigan	125.00	
Michigan State Dental Society	125.00	
Michigan Tuberculosis Association	75.00	
Michigan State Nurses Association	25.00	
	\$2,290.00	
Less refund to Michigan State Medical Society	750.00	
		1,540.00
		\$3,651.85

Disbursements

Salaries	\$2,100.00
W. D. Henderson (prizes)	300.00
Donald C. Lyons (articles)	96.00
Postage	45.76
Alumni Press	24.75
Miscellaneous	47.93
	2,614.44
Balance Due Joint Committee Dec. 29, 1931	\$1,037.41

**SUMMARY OF INCOME AND DISBURSEMENTS—
COUZENS' FOUNDATION
MICHIGAN STATE MEDICAL SOCIETY
YEAR ENDED DECEMBER 29, 1931**

Income
Children's Fund of Michigan.....\$3,000.00

Disbursements
Sundry disbursements prior to 1931.....\$1,224.54
Disbursements for 1931:
Printing.....\$ 34.00
Lectures and traveling expense.....1,273.15
1,307.15
2,531.69

Balance, Dec. 29, 1931.....\$ 468.31

**SUMMARY OF CHANGES IN MEDICO LEGAL
DEFENSE FUND RESERVE
MICHIGAN STATE MEDICAL SOCIETY
YEAR ENDED DECEMBER 29, 1931**
Balance, Dec. 30, 1930.....\$19,394.06

Additions
Dues.....\$4,805.00
Interest received.....846.35
Profit on sale of securities.....43.20
5,694.55
\$25,088.61

Deductions
Salaries.....\$1,119.47
Legal services.....5,492.75
Dues returned.....27.75
Postage and miscellaneous.....117.97
\$6,757.94
Provision for reduction of bonds to approximate market value.....6,755.50
13,513.44
Balance, Dec. 29, 1931.....\$11,575.17

**TRIAL BALANCE
MICHIGAN STATE MEDICAL SOCIETY
DECEMBER 29, 1931**

	Debits	Credits
Old Kent Bank.....		\$ 12.87
Accounts Receivable.....	\$ 879.31	
Advertising Sales.....		8,849.23
Annual Meeting.....	1,556.31	
Bond Account—Society.....	22,194.20	
Bond Account—Defense.....	16,710.00	
Cancer Committee.....	39.98	
Civic and Industrial Relations Comn.....	298.02	
Council Expense.....	1,927.75	
Couzens Foundation.....		468.31
Delegates to Am. Medical Assn.....	544.01	
Dues.....		19,057.00
Editor's Salary.....	3,500.00	
Editor's Expense.....	854.24	
Health Agency Survey.....	108.90	
History—Accounts Receivable.....		68.00
History—Expense.....	1,609.84	
History—Contract.....	4,500.00	
History—Reserve.....		4,500.00
Interest Account—Society.....	1,699.90	
Joint Committee.....	1,037.41	
Journal Expense.....	10,187.52	
Journal Subscriptions.....		8,116.82
Legislative Committee.....	2,630.87	
Medico-Legal Defense.....		3,030.92
Medico-Legal—Reserve.....		16,666.80
Office Rent.....	1,800.00	
Postage.....	405.00	
Postgraduate Conferences.....	769.62	
Present Worth.....		20,321.70
Provision for Doubtful Accounts.....		250.00
Radio Committee.....	104.70	
Reprint Expense.....	1,325.55	
Reprint Sales.....		1,468.78
Society Expense.....	4,085.92	
Secretary's Salary.....	6,500.00	
Stenographers.....	3,016.00	
	\$85,547.74	\$85,547.74

Journal Expense

January	A. P. Johnson Co.....\$ 5.00	
	Bruce Publishing Co.....660.00	
	Addressograph Co.....2.94	
	Register of Copyrights.....2.00	\$ 669.94
February	Bruce Publishing Co.....\$ 730.14	
	Register of Copyrights.....2.00	\$ 732.14
March	Bruce Publishing Co.....\$1,197.61	
	Register of Copyrights.....2.00	\$ 1,199.61
April	Bruce Publishing Co.....\$ 686.49	
	Register of Copyrights.....2.00	
	Geo. G. Ma Dan & Co.....27.75	\$ 716.24
May	Bruce Publishing Co.....\$1,059.13	
	Register of Copyrights.....2.00	
	J. H. Dunlap.....2.00	\$ 1,063.16
June	Bruce Publishing Co.....\$ 805.16	
	Register of Copyrights.....2.00	\$ 807.16
July	Bruce Publishing Co.....\$ 805.93	
	Register of Copyrights.....2.00	\$ 807.93
August	Bruce Publishing Co.....\$ 988.93	
	Register of Copyrights.....2.00	\$ 990.93
September	Bruce Publishing Co.....\$ 798.31	
	Register of Copyrights.....2.00	\$ 800.31
October	Bruce Publishing Co.....\$ 762.71	
	Register of Copyrights.....2.00	\$ 764.71
November	Bruce Publishing Co.....\$ 985.96	
	Register of Copyrights.....2.00	987.96
December	Bruce Publishing Co.....\$ 924.79	
	Register of Copyrights.....2.00	\$ 926.79
	Credits—for cuts.....	\$10,466.88
		279.36
		\$10,187.52

Council Expense—1931

January	Otto L. Ricker.....\$ 46.00	
	C. A. Neafie.....7.45	
	T. Heavenrich.....11.50	
	Henry Carstens.....7.00	
	University of Mich. Union.....40.05	
	B. H. Van Leuven.....35.50	
	B. R. Corbus.....89.11	\$ 236.61
February	J. Earl McIntyre.....\$ 26.44	
	C. E. Boys.....16.74	
	C. F. Moll.....36.76	
	Wayne Co. Medical Society.....35.00	
	F. C. Warnshuis.....34.19	\$ 149.13
March	R. A. Burke.....\$ 50.00	
	Henry Cook.....19.00	
	Julius Powers.....20.00	
	F. C. Warnshuis.....12.80	\$ 101.80
May	F. C. Warnshuis.....\$ 25.00	
	F. C. Warnshuis.....26.65	
	P. R. Urmston.....86.58	
	C. A. Neafie.....2.00	
	Pantlind Hotel.....28.60	
	Donaldson-Connolly.....54.00	
	Tish-Hine.....15.00	\$ 237.83
June	E. A. Oakes.....\$ 133.75	
	C. F. Moll.....13.76	
	B. R. Corbus.....99.45	\$ 246.96
July	F. C. Warnshuis.....\$ 9.60	
	R. C. Stone.....184.98	\$ 194.58
August	G. W. Woodcock.....\$ 24.00	
	George LeFevre.....75.00	\$ 99.00

September			
Henry Cook	\$ 30.85	\$ 30.85	
October			
B. R. Corbus.....	\$250.00		
O. L. Ricker.....	86.47		
F. C. Warnshuis.....	24.20		
R. A. Burke.....	40.00		
		\$ 410.67	

December			
R. C. Stone.....	\$ 170.60		
C. E. Boys.....	49.72		
		\$ 220.32	
		\$1,927.75	

Annual Meeting Expense—1931

		Debits	Credits
February			
Gen. X-ray—Exhibit Space—			
1930			\$ 12.50
April			
Secy.—Trip to Pontiac.....	\$ 26.49	\$ 26.49	
May			
Hotel Statler—Section Offi-			
ciers	35.50		
Carl F. Snapp.....	7.47		
H. J. Bisbee.....	4.50		
		\$ 47.47	
June			
F. J. Mester.....	\$ 3.75		
Thomas Blue Print Shop.....	6.00		
		\$ 9.75	
	Exhibit Space sold.....		\$137.50
July			
Secretary	\$ 26.30	\$ 26.30	
	Exhibit Spaces sold.....		\$ 75.00
August			
	Exhibit Spaces sold.....		\$ 25.00
September			
A. P. Johnson Co.....	15.20		
H. O. Westervelt.....	42.92		
Milo Art Studio—Booths.....	200.00		
Lois Stewart.....	6.00		
Hotel Waldron.....	179.84		
Hotel Waldron.....	28.10		
Carl Vedink—Labor.....	45.25		
Express	25.20		
Dr. Wm. German.....	36.69		
Express	24.62		
		\$ 603.82	
	Exhibit Spaces sold.....		\$177.50
October			
Caroline Hoffman.....	\$ 20.48		
Elizabeth Halfpenny.....	15.00		
Veta Winegarden.....	15.00		
Marvel Leonard.....	15.00		
Ruth Conover.....	15.00		
Arthur H. Curtis.....	40.00		
Harold A. Furlong.....	3.75		
Peter C. Kronfeld.....	40.00		
Fred L. Adair.....	31.00		
John A. Bigler.....	31.87		
Bruce Publishing Co.....	99.45		
Bronson Vrothers.....	85.00		
Loyal Davis.....	37.28		
Golden & Boter.....	3.50		
Charles C. Kiely.....	35.00		
Masonic Temple.....	350.00		
Master Reporting Co.....	150.95		
W. O. Mullin.....	26.66		
J. A. Myers.....	63.80		
First Presbyterian Church.....	70.00		
Dallas K. Phemister.....	28.00		
Service Sign Co.....	29.25		
Walter M. Simpson.....	32.00		
W. P. Smith.....	10.00		
Hotel Statler—Guests.....	57.25		
St. Louis Button Co.....	45.05		
		\$1,350.29	
	Exhibit Spaces sold.....		\$175.00
November			
Victor Moyer.....	\$ 8.00		
First Baptist Church.....	90.00		
		\$ 98.00	
	Error in check issued.....	\$ 5.60	
	Rebate on Tel. Calls.....	1.71	
		\$ 7.31	
December			
Robert Isbell.....	\$ 4.00	\$ 4.00	
		\$2,166.12	\$609.81
		609.81	
		\$1,556.31	

Couzens Foundation

Balance from 1930.....	\$ 275.46
February 28, 1931—Check	
received	1,500.00

January			
O. L. Ricker.....	\$ 25.00		
A. P. Johnson Co.....	16.15		
W. S. O'Donnell.....	61.00		
Harther L. Keim.....	61.00		
L. A. Schwartz.....	12.20		
J. E. Gordon.....	73.74		
Udo J. Wile.....	55.00		
		\$ 304.09	

February			
Alumni Press.....	\$ 3.75	\$ 3.75	
March			
David J. Levy.....	\$ 65.00		
John E. Gordon.....	61.00		
F. B. Wilson.....	174.25		
P. F. Morse.....	175.52		
Max N. Peet.....	168.57		
J. D. Bruce.....	140.87		
A. P. Johnson Co.....	7.60		
		\$ 792.81	

May			
A. P. Johnson Co.....	\$ 6.50	\$ 6.50	

August			
R. C. Stone.....	\$100.00		
B. R. Corbus.....	50.00		
		\$ 150.00	

September			
G. C. Penberthy.....	\$ 50.00	\$ 50.00	

\$1,307.15 \$1,775.46
1,307.15

Balance on hand.....\$ 468.31

Delegates to American Medical Association

June—1931			
H. A. Luce.....	\$ 69.91		
Carl Moll.....	101.26		
C. S. Gorsline.....	108.04		
		\$ 279.21	

July—1931			
A. W. Hornbogen.....	\$152.09		
J. D. Brook.....	112.71		
		\$ 264.80	
		\$544.01	

Civic and Industrial Relations Committee

January			
H. S. Collisi.....	\$ 20.11		
Wayne Co. Medical Society.....	19.80		
C. W. Brainard.....	8.60		
Don Kudner.....	10.40		
		\$ 58.91	

February			
H. S. Collisi.....	\$ 21.36		
Wayne Co. Medical Society.....	32.80		
D. F. Kudner.....	10.80		
		\$ 64.96	

March			
H. S. Collisi.....	\$ 25.00		
H. S. Collisi.....	5.28		
C. W. Brainard.....	8.60		
		\$ 38.88	

April			
H. S. Collisi.....	\$ 5.04	\$ 5.04	

May			
H. S. Collisi.....	\$ 16.63		
C. S. Gorsline.....	10.10		
D. F. Kudner.....	10.80		
		\$ 37.53	

June			
E. I. Carr.....	\$ 13.60		
Wayne Co. Medical Society.....	22.00		
		\$ 35.60	

July			
H. S. Collisi.....	\$ 9.44	\$ 9.44	

December			
H. S. Collisi.....	\$ 34.75		
Philip Riley.....	6.91		
A. R. McKinney.....	6.00		
		\$ 47.66	
		\$298.02	

Legislative Committee

February			
Earl I. Carr.....	\$ 88.30		
Taylor Letter Shop.....	29.00		
Secretary	21.39		
		\$ 138.69	

March			
Norris-McPherson-Harrington			
Waer—1930 account	\$700.00		
J. B. Jackson.....	18.54		
A. H. Whittaker.....	426.76		
J. B. Jackson.....	22.35		
A. P. Johnson Co.....	104.41		
Taylor Husted.....	10.75		
		\$1,282.81	

April		
J. B. Jackson.....	\$ 3.55	
John Sundwall.....	103.48	
E. I. Carr.....	148.83	
John Sundwall.....	26.95	
		\$ 282.81
May		
A. H. Whittaker.....	\$ 53.30	
Bernice N. Hall.....	25.70	
Ace Letter Shop.....	77.20	
A. H. Whittaker.....	658.93	
		\$ 815.13
June		
Earl I. Carr.....	\$ 9.05	
B. R. Corbus.....	12.00	
		\$ 21.05
August		
A. H. Whittaker.....	\$ 49.69	\$ 49.69
November		
A. H. Whittaker.....	\$ 2.25	
John Sundwall.....	27.24	
Earl I. Carr.....	11.20	
		\$ 40.69
		\$2,630.87

Health Agencies Survey

November		
C. S. Gorsline.....	\$ 7.20	
W. H. Marshall.....	20.95	
Secretary.....	20.50	
		\$ 48.65
December		
F. A. Baker.....	\$ 6.82	
C. S. Gorsline.....	7.36	
W. H. Marshall.....	10.40	
Secretary.....	23.83	
F. A. Baker.....	11.84	
		\$ 60.25
		\$ 108.90

History Expense

March		
C. B. Burr.....	\$ 102.34	
Bruce Publishing Co.....	1,500.00	
		\$1,602.34
October		
History Sold.....	\$ 7.50	\$ 7.50
		\$1,609.84

Expenses Cancer Committee—1931

March		
C. E. Dutches.....	\$ 1.28	
C. E. Dutches.....	27.20	
		\$28.48
May		
Advertising Letter Shop.....	\$ 4.75	\$ 4.75
July		
C. E. Dutches.....	\$ 6.75	\$ 6.75
		\$39.98

Medico-Legal Defense

	Debits	Credits
Balance from 1930.....		\$ 2,727.26
Unclipped Coupons.....	\$125.00	\$ 125.00
January		
F. B. Tibbals.....	\$ 11.80	
Postage.....	70.00	
	\$ 81.80	
Dues Paid.....		306.00
Interest on Bonds.....		152.50
February		
F. B. Tibbals.....	\$500.00	
Douglas-Barbour.....	500.00	
	\$ 1,000.00	
Dues Paid.....		\$ 1,005.00
Interest on Bonds.....		125.82
March		
Return of dues—overpaid.....	\$ 1.50	\$ 1.50
Dues Paid.....		\$ 954.00
April		
Douglas-Barbour.....	\$375.00	
Douglas-Barbour.....	175.00	
	\$ 550.00	
Dues Paid.....		\$ 1,021.50
May		
Douglas-Barbour.....	\$ 75.00	
Dues Paid.....		\$ 528.00
June		
W. J. Stapleton.....	\$ 7.20	
Douglas-Barbour.....	631.00	
Return of dues.....	1.50	
	\$ 639.70	
Dues Paid.....		\$ 284.50
July		
W. J. Stapleton.....	\$ 10.00	
W. J. Stapleton—Salary.....	202.80	
A. P. Johnson Co.....	7.85	
Douglas-Barbour.....	500.00	
Douglas-Barbour.....	312.50	
Return of Dues.....	1.50	
	\$1,034.65	
Dues Paid.....		\$ 217.00
Interest on Bonds.....		519.50

August		
Wm. J. Stapleton.....	\$ 83.33	
Return of Dues.....	2.25	
	\$ 85.88	
Dues Paid.....		\$ 184.50
Interest.....		76.73
September		
Wm. J. Stapleton.....	\$ 83.33	
Wm. J. Stapleton.....	11.12	
Douglas-Barbour.....	155.00	
	\$ 249.45	
Dues Paid.....		\$ 135.50
October		
Wm. J. Stapleton.....	\$ 83.33	
Douglas-Barbour.....	100.00	
Douglas-Barbour.....	40.00	
Douglas-Barbour.....	390.21	
Return of Dues.....	3.00	
	\$ 616.54	
Dues Paid.....		\$ 15.50
November		
Wm. J. Stapleton.....	\$ 83.33	
Douglas-Barbour.....	538.49	
	\$ 621.82	
Dues Paid.....		\$ 41.00
December		
Wm. J. Stapleton.....	\$ 83.33	
Douglas-Barbour.....	326.00	
Return of Dues.....	18.00	
	\$ 427.35	
Dues Paid.....		\$ 105.00
Interest on Bonds.....		140.00
Net proceeds from sale of Bonds.....		2,556.80
Unpaid Bills.....	\$1,374.55	
	\$6,882.94	\$11,096.11
		6,882.94
Cash on hand.....		\$ 4,213.17

Post Graduate Conference

January		
A. P. Johnson Co.....	\$ 8.00	
Secretary.....	41.00	
N. Sinai.....	18.08	
P. F. Morris.....	11.00	
		\$ 78.08
April		
Carl D. Camp.....	\$ 9.58	\$ 9.58
May		
Secretary.....	\$ 16.40	
W. G. Maddock.....	7.00	
F. A. Collier.....	7.00	
		\$ 30.40
June		
John Kemper.....	\$ 28.00	
Eugene Potter.....	14.00	
Harther L. Keim.....	48.20	
J. E. Gordon.....	51.10	
B. R. Corbus.....	132.00	
		\$273.30
September		
W. J. Cassidy.....	\$ 43.00	
J. E. Gordon.....	27.75	
		\$ 70.75
October		
L. F. Foster.....	\$ 75.00	
E. S. Peterson.....	75.00	
		\$150.00
November		
A. P. Johnson Co.....	\$ 59.00	
Hayes Hotel.....	11.00	
		\$ 70.00
December		
J. E. Gordon.....	\$137.88	
C. H. Westgate.....	4.48	
		\$142.36
		\$824.47
		54.85
		\$769.62

Credit—University of Michigan**Joint Committee—Public Health Education**

	Debits	Credits
Balance from 1930.....		\$2,111.85
January		
Salaries.....	\$175.00	\$ 175.00
Detroit News.....		\$ 90.00
February		
Salaries.....	\$175.00	
University of Michigan.....	4.93	
	\$ 179.93	
Detroit News.....		\$ 40.00
Tuberculosis Assn.—Donation.....		75.00
University of Mich.—Donation.....		125.00
Mich. State Society—Return on 1930 Donation.....	\$ 750.00	

March			
Salaries	\$175.00	\$ 175.00	
Detroit News			\$ 40.00
April			
Salaries	\$175.00		
Don C. Lyons	44.00		
		\$ 219.00	
Detroit News			\$ 50.00
Mich. State Nurses Assn.			
—Donation			25.00
Children's Fund of Mich.			
—Donation			1,500.00
May			
Salaries	\$175.00		
W. D. Henderson	100.00		
Addressing Envelopes	3.00		
		\$ 278.00	
Detroit News			\$ 40.00
Mich. State Dental Society			
—Donation			125.00
June			
Salaries	\$175.00	\$ 175.00	
Detroit News			\$ 40.00
July			
Salaries	\$175.00	\$ 175.00	
August			
Salaries	\$175.00	\$ 175.00	
Detroit News			\$ 90.00
September			
Salaries	\$175.00	\$ 175.00	
October			
Salaries	\$175.00		
Alumni Press	24.75		
Don C. Lyons	52.00		
W. D. Henderson	200.00		
		\$ 451.75	
Detroit News			\$ 50.00
November			
Salaries	\$175.00	\$ 175.00	
December			
Salaries	\$175.00		
Postmaster—Ann Arbor	45.76		
Herman Riecker	40.00		
		\$ 260.76	
		\$3,364.44	\$4,401.85
			3,364.44
Balance			\$1,037.41

Society Expense

January			
A. P. Johnson Co.	\$ 102.20		
Barlow Bros.	19.50		
Tisch Hine	4.10		
Long Distance Calls	2.00		
Western Union	5.28		
Secretary—Council Meeting—			
Secy. Conf.	50.00		
H. M. Best	12.16		
E. J. Dougher	10.00		
R. H. Alter	6.00		
G. F. Swanson	38.30		
Martin Tweedie	23.36		
L. F. Foster	17.60		
S. L. Loupee	22.72		
Almon Fletcher	48.00		
W. B. Newton	27.50		
W. C. Ellet	16.00		
E. M. Highfield	18.72		
J. J. McCann	17.00		
R. J. Hubbell	7.66		
Florence Ames	5.90		
W. E. Ward	7.50		
C. A. Neafie	16.10		
E. P. Wilbur	20.29		
Don Duffie	30.44		
E. F. Sladek	39.15		
W. D. Henderson	30.00		
		\$ 597.48	
February			
John Whalen	\$ 21.00		
H. F. Becker	6.00		
G. C. Stucky	10.40		
Donation Perishing Fund—Gogebic	5.00		
Bruce Publishing Co.	2.75		
A. P. Johnson Co.	1.50		
Master Reporting Co.	104.91		
Taylor-Husted	38.20		
Taylor	8.50		
H. W. Ten Broek	59.00		
Tisch-Hine	3.00		
University of Michigan	2.86		
L. D. Calls	4.35		
Western Union	3.12		
		\$ 270.59	
March			
Secretary—Meeting with Genesee			
Co.	\$ 16.64		
W. K. Anderson	15.00		
Russell Rowland	50.00		
Wm. Hudson	25.00		
Vernon L. Hart	25.00		

Geo. L. Waldbott			
Addressograph Co.			
C. W. Colwell			
E. J. Evans			
A. P. Johnson Co.			
Taylors			
L. D. Calls			
Western Union			
C. Hoffman			
			\$ 366.41
April			
Addressograph Co.			
Tisch-Hine			
L. D. Calls			
Burr's Funeral			
			\$ 23.09
May			
J. Earl McIntyre			
A. P. Johnson Co.			
Tisch-Hine			
Alumni Association			
L. D. Calls—Apr. 17 to May 13			
Bixby's Office Supply Co.			
Addressograph Co.			
A. F. Crabb			
Ernst & Ernst			
Remington-Rand			
Taylors			
Tisch-Hine			
L. D. Calls—Mar. 19 to Apr. 16			
Western Union			
Addressograph Co.			
			\$ 338.23
June			
Addressograph Co.			
American Medical Association			
Western Union			
			\$ 27.80
July			
L. D. Calls			
Addressograph Co.			
Bixby's Office Supply Co.			
Bixby's Office Supply Co.			
A. P. Johnson Co.			
Taylors			
Western Union			
Dave Proos			
Express			
Spencer Lens Co.			
			\$ 234.87
August			
Dave Proos			
Addressograph Co.			
A. P. Johnson Co.			
W. B. Saunders Co.			
Spencer Lens Co.			
Taylors			
Tisch-Hine			
Express			
Western Union			
Mailing List			
Dave Proos			
			\$ 433.09
September			
Dave Proos			
A. F. Crabb			
A. P. Johnson Co.			
L. D. Calls			
H. R. Terryberry			
Western Union			
Dave Proos			
			\$ 797.87
October			
Addressograph Co.			
G. R. Trust Co.			
L. J. Schermerhorn			
Taylors			
Tisch-Hine			
L. D. Calls			
Western Union			
Marshall Field & Co.			
Russell Rowland			
J. E. Davis			
O. A. Brines			
			\$ 321.50
November			
G. R. Insurance Agency			
A. P. Johnson Co.			
C. C. Slemmons			
Remington-Rand			
Richards Storage			
Taylors			
L. D. Calls			
Secretary—Bay City, Flint,			
Escanaba			
Railway Express Agency			
			\$1,398.98
December			
Lettering Tables			
Addressograph Co.			
Bixby's Office Supply Co.			
A. P. Johnson Co.			

Richard Storage Co.....	2.00
Taylor-Husted	12.85
Taylor's	2.85
Western Union	1.51
C. F. Moll	79.85
Taylor's	1.00
Bixby's Office Supply Co.....	3.15

\$ 133.82

\$4,943.73

Credits

Donation to Perishing Fund.....	\$ 5.00
Donation to Joint Committee.....	750.00
J. E. Waddington.....	4.79
Cuts	45.62
Checks—Not cashed in 1930.....	52.40

\$ 857.81

\$4,085.92

Expenses—1931

	Editor	Editor Expense	Rent	Postage	Reprint Expense	Secretary	Stenographers
January.....	\$ 291.00	\$ 72.71	\$ 150.00	\$ 50.00		\$ 541.00	\$ 275.00
February.....	291.00	73.86	150.00	30.00	\$ 181.45	541.00	235.00
March.....	291.00	65.31	150.00	25.00		541.00	235.00
April.....	291.00	71.33	150.00	20.00	89.55	541.00	235.00
May.....	291.00	71.79	150.00	20.00	271.85	541.00	275.00
June.....	291.00	72.41	150.00	30.00	154.15	541.00	235.00
July.....	291.00	70.41	150.00	75.00	24.85	541.00	271.00
August.....	291.00	71.93	150.00		46.00	541.00	275.00
September.....	291.00	71.16	150.00	30.00	135.95	541.00	235.00
October.....	291.00	68.16	150.00	30.00	84.00	541.00	275.00
November.....	291.00	73.69	150.00	30.00	244.70	541.00	235.00
December.....	299.00	71.48	150.00		93.05	549.00	235.00
	\$3,500.00	\$854.24	\$1,800.00	\$405.00	\$1,325.25	\$6,500.00	\$3,016.00

2. Chairman Corbus appointed the following committees:

County Societies:

C. E. Boys, Chairman
Harlen MacMullen
C. A. Neafie

Finance:

George L. LeFevre, Chairman
Paul R. Urmston
George C. Hafford

Publication:

James D. Bruce, Chairman
A. S. Brunk
B. H. Van Leuven

These committee appointments were approved.

3. The Council then discussed a plan for organization of the Executive Committee of the Council. Upon motion of Brunk-Powers, the Council resolved that the Executive Committee would be composed of the Chairmen of the Standing Committees of the Council, the Chairman and Vice Chairman of the Council, and Dr. Henry Carstens of Detroit.

4. Dr. Frank J. Kelly, Treasurer of the Wayne County Medical Society, appeared before the Council and presented the request of the Wayne County Medical Society, together with certain reasons, for a reduction of state dues to \$7.50 per year. After discussion with Dr. Kelly the request of the Wayne County and that of Jackson County were referred to the Finance Committee.

5. The editor, Dr. J. H. Dempster, presented the following report:

THE EDITOR'S REPORT

To the Members of the Council of the Michigan State Medical Society:

The editor's report seems to be more or less a superfluous matter considering the fact that he has

a habit of reporting each month. In other words the Journal as received is his report. A few statistics might not be wholly uninteresting. The Journal of the Michigan State Medical Society for 1931 contained 980 pages. This is the largest volume ever gotten out in the history of this Society, being 20 pages larger than 1930. The editorials numbered 96. Regarding their quality your editor has no comment to make. He has endeavored to confine them largely to subjects with which he feels more or less conversant and hopes that nothing premature or foolish has appeared in the editorial pages that would compromise the fair name of the Michigan State Medical Society. He has endeavored to edit all copy carefully. The task for the most part has not been difficult although in several instances writers of contributed papers have taken occasion to make changes in the galley proof; in two instances in particular the articles had to be almost entirely reset. I have commented editorially on the preparation of scientific papers, particularly on page 465 of Volume XXX. If contributors would exercise greater care with their copy before sent to the printer much of the expense of resetting could be eliminated. This refers to changes that are made which are in the line of improving the diction or composition.

Otherwise the Journal is before you. Suggestions for its improvement will be welcomed.

Respectfully yours,

J. H. DEMPSTER.

This report was referred to the Publication Committee.

6. Dr. W. J. Stapleton, Chairman of the Medico-legal Committee, made a verbal report of the activities of his committee during the past year. Dr. Stapleton presented in detail the problems confronting the committee, the cases that the committee had handled and outlined the policies that were being observed by the committee. Following a general discussion the report of the Medico-legal committee was referred to the Council committee on County Societies.

7. The Secretary presented the following resignation from the Treasurer, Dr. John R. Rogers:

Grand Rapids, Mich.
December 21, 1931

Dr. F. C. Warnshuis,
Secretary of the Michigan State Medical Society
1508 G. R. National Bank Building
Grand Rapids, Michigan
Dear Dr. Warnshuis:

I hereby tender to the Council of the Michigan State Medical Society my resignation from the office of Treasurer of the Society, and respectfully request that it be acted upon at the meeting of January 8.

Will you be kind enough to bring this matter before the Council.

Sincerely yours,
JOHN R. ROGERS, *Treasurer*.

Upon motion of Powers-LeFevre, the Council accepted the resignation and directed the Secretary to spread upon the minutes the appreciation of the services that Dr. Rogers had rendered to the society and also to convey the Council's appreciation to Dr. Rogers.

8. The Secretary presented a communication from Dr. W. C. Ellet relative to payment of dues of twelve members of the Berrien County Medical Society. These dues have been paid by members, have been deposited in the bank to the credit of the county society and a check had been forwarded to the State Secretary. The State Secretary deposited the check, but it was returned because of the closure of the bank upon which it was drawn, thereby losing the funds of these members. Dr. Ellet personally offered to give his personal note to reimburse the State Society for the dues of these members. After discussion it was moved by Neafie-Cook that the dues of these members be credited and charged to the general account of the society, and that Dr. Ellet be relieved of any indebtedness; that in the event the funds of the county society were released by the defaulting bank the Society should then remit these dues.

9. The Secretary presented the following list of names which had been elected to honorary membership by the House of Delegates at the 1931 Annual Meeting. On motion of Heavenrich-Van Leuven these were approved and the Secretary directed to transfer these members to the honorary list of the Society.

Duncan A. Cameron, Alpena County, Alpena
A. L. Roller, Kent County, Grand Rapids
S. L. Rozema, Kent County, Grand Rapids
G. O. Switzer, Mason County, Ludington
Wilbur F. Reed, Northern Michigan, Cheboygan
Fred W. Rogers, Jackson County, Jackson
Chester H. Sample, Saginaw County, Saginaw
J. S. Platt, St. Clair County, Port Huron
J. F. Doudna, Tri County, Lake City

10. The Secretary presented a communication from the Bruce Publishing Company

in which they tendered a voluntary reduction thirty-five cents (35c) per page on the printing cost of the Journal.

11. The Council recessed at 12:45 to reconvene at 2:30 P. M.

12. Chairman Boys of the committee on County Societies presented the following report—

COUNTY SOCIETIES

Your committee gives a general endorsement of the report of the Secretary insofar as related to the subjects assigned to this committee.

We endorse the plan to postpone the Annual Conference of County Secretaries, and suggest the recommendation of the Secretary that councilors meet with the secretaries of the county societies in their district during the months of February and March for the purpose of discussing the activities of both the County and the State Society.

We endorse the Secretary's comments and recommendations made upon the subject of the Standing Committees of the Society. We approve the plan of continuing to inform the profession as to the benefits to be derived from membership in the Michigan State Medical Society.

We would recommend the distribution of the charts, prepared by the Secretary and as published in the January issue of the State Journal, to the secretaries of county societies and recommend that they serve as a basis of discussion at one of the county society meetings.

Referring to the matter of scientific programs your committee appreciates the difficulty and importance of arranging programs for the smaller county units and we feel that the State Society could function in this matter in two ways. First, by encouraging fusion of such societies for holding of joint meetings; second, by the ownership and release of films, slides and other material, and perhaps providing for speakers for special occasions. We would recommend that, when the financial condition of the society permits, a film library would be established.

We endorse the comments of the Secretary relative to frequent publication in the Journal of the activities of the Society and the work that is being accomplished by committees.

We endorse the comments made by the Secretary relative to the cost of annual meet-

ings and advance the suggestion that where rental costs of auditoriums are charged this expense be borne by the local society of the city where the annual meeting session is held.

Relative to Medico-legal defense, we urge that greater effort be made to acquaint the local societies with the problems of this feature of organizational work, and it is the thought of your committee that this could be accomplished by more frequent presentation of the subject on the programs of the local societies. We would recommend that each councilor present this matter at least once a year to all of the societies in his councilor district.

(Signed) C. E. BOYS, *Chairman*
C. A. NEAFIE
HARLEN MACMULLEN

After discussion engaged in at length, upon motion of Cook-Urmston, the report of this committee was approved and adopted.

PUBLICATION COMMITTEE

13. The Chairman of the Publication committee made the following report:

During the past year we have published twelve numbers of the Journal with an average of 82 pages for each number. This is the largest volume in the history of the Michigan State Medical Society. Necessity will probably call for a reduction in the number of pages during the present year. This will mean not only a reduction in the number of original articles printed but also in the editorial matter and excerpts from other journals and publications. There will be no sacrifice in the present high tone of the Journal but rather a greater discrimination in selection of material. The same fine grade of paper and the same typographical excellence will be maintained.

While the contributed articles and editorials over which the editor has supervision are being indexed, it seems fitting that county society notes and contributions, together with other material for which the secretary assumes responsibility, be given equal recognition in the index. This will make for much more convenient reference.

The 1931 volume contained 104 half-tone illustrations and 77 line drawings. The cost of these has been borne by the contributors. The editor has drawn attention to instances in which illustrations have consisted of photographs of faces in which there is a possibility of recognizing the subject and suggests that contributors should obtain permission, in writing, to use photographs for illustrations, or to disguise the features so to render identification impossible.

The proof reading has been satisfactory to the editor. The first proofs are read and revised by the publisher's proof reader, then mailed to the authors for further revision. The author returns them to the editor who, in turn, revises the page proofs when the papers are arranged in the form for printing. In several instances authors have made very drastic changes in the subject matter of their articles after receiving their proofs. This, of course, necessitates unnecessary expense as well as loss of time

in resetting the article. The trouble could be obviated if authors would exercise greater care in the organizing and writing of their papers.

The long experience of the editor has seemed to warrant your Committee in permitting great freedom in the matter of editorial policy. He has, however, submitted for review most of his contributions, and all of those of which he has had the slightest doubt.

During the several years that Dr. Dempster has edited the Journal the cover page has been devoted to a paragraph dealing with some phase of medical practice. Formerly this was written by members of the profession but more recently by the editor himself. The exigencies of the times compel your Committee to recommend the discontinuance of this feature and the utilization of this space for advertising.

Relations with our Publishing House have been most satisfactory. The company has voluntarily offered us a reduction amounting to approximately \$500.00 per year in expense of printing. This, together with a small reduction in the size of the Journal, should make a saving of approximately \$1,000.00.

B. H. VAN LEUVEN
A. S. BRUNK
J. D. BRUCE, *Chairman*.

Upon motion of Neafie-MacMullen, the publication committee report was adopted except that portion relating to finance.

FINANCE COMMITTEE

14. The Finance Committee, through its chairman, Dr. LeFevre, made the following report—

The request for reduction of dues on the part of Wayne and Jackson counties meets with very sympathetic response on the part of your Finance Committee, and your committee recommends that if after discussion a way can be found by which the Council will have authority that a temporary reduction of \$2.50 per year in the dues be made for the year 1932. Your committee recommends the following general budget to govern the expenditures of the Society for the year 1932:

BUDGET 1932

Defense	\$1.00 per member
Journal	\$2.50 per member
Society Expense	\$4.00 per member
Rent and Power	\$1,200.00
Annual Meeting	1,000.00
P. G. Conferences	1,000.00
Committee Expenses	1,200.00
Council Expenses	1,200.00
Postage	400.00
Joint Committee	250.00
Delegates A. M. A.	500.00
Clerical Expense and Typing	2,700.00
Secretary	4,000.00
Editor	2,500.00

After a very full discussion of the finances of the Society and the question of reduction of dues, it was moved by Cook-Heavenrich that the Secretary be directed to give a rebate of \$2.50 per member for every member who paid his 1932 dues and to charge the

same against the contingent fund of the society. Upon motion of Cook-Urmston, the report of the Finance Committee was adopted.

ELECTIONS

15. Elections—Upon motion of Cook-Bruce, Dr. F. C. Warnshuis was continued as secretary.

Upon motion of Bruce-Heavenrich, Dr. J. H. Dempster was elected editor for the ensuing year.

Upon motion of Cook-Heavenrich, Dr. Aaron Verne Wenger was elected treasurer.

Upon motion of Van Leuven-Boys, the question of a special meeting of the Council, to be held in Jackson with the special meeting of the House of Delegates in Jackson on January 27, 1932, be subject to the judgment and call of the Chairman of the Council.

16. Upon motion of Brunk-Carstens, the Council recorded that it was not in agreement as to the annual retainer fee paid to the attorneys for the Medico-legal committee, and that the Council recommend to the Medico-legal committee that the question of paying this retainer and a modification of the attorney fees be referred to the Medico-legal committee, who are requested to confer with their attorney in an endeavor to secure a readjustment of these fees.

17. There being no further business the Council adjourned at 7:30 P. M.

F. C. WARNSHUIS, *Secretary*.

PROCEEDINGS OF THE EXECUTIVE COMMITTEE OF THE COUNCIL OF THE MICHIGAN STATE MEDICAL SOCIETY, HELD AT THE HOTEL STATLER IN DETROIT, MICHIGAN, THE EVENING OF DECEMBER 17, 1931

Committee members present: Corbus, Bruce, Boys, Cook. President Moll, President-elect Robb. Councilors: Carstens and Brook. Guests: Marshall and Whittaker.

Dr. Marshall, chairman of the Committee on the Professional Service Survey, reported the plans and progress of his committee, which was followed by a lengthy discussion.

On motion the Executive Committee approved the plans for the dinner to Regent Smith, and the date, January 14, 1932.

On motion the secretary was instructed to omit the annual meeting of the County Secretaries, and that it be suggested to the Council that each councilor be directed to call a meeting of the county secretaries in his district, during the early part of the year, for the purpose of discussing local and state society problems.

On motion the secretary was instructed to issue a call for the special meeting of the House of Delegates for January 27, 1932, at Jackson, Michigan, the

form of the call to follow closely the original petition for the meeting as presented to and acted upon by the House of Delegates.

On motion the secretary was instructed to call the annual meeting of the Council for Friday, January 8, at 10:30 A. M., at the Hotel Statler, Detroit, Michigan.

On motion the secretary was instructed to call a meeting of the Executive Committee of the Council for 8:30 A. M., Friday, January 8, in Detroit.

There was a discussion on the possibility of further economies which might be instituted in the conduct of the Society during the coming year, which economies will be necessary on account of the increasing number of delinquent members.

F. C. WARNSHUIS, *Secretary*.

COUNTY SOCIETIES

ALPENA COUNTY

At the annual meeting of the Alpena County Medical Society held Dec. 17, 1931, the following officers were elected: Dr. A. R. Miller, president, Harrisville; Dr. F. J. O'Donnell, vice president, Alpena; Dr. W. B. Newton, secretary-treasurer, Alpena; Dr. E. L. Foley, delegate, Alpena; Dr. L. F. Secrist, alternate, Alpena; Dr. W. B. Newton, legal representative, Alpena.

At this meeting, at which Dr. Van Leuven was present, the society passed a resolution endorsing Dr. F. C. Warnshuis as Secretary of the State Society and recommending his continuance in that office.

CALHOUN COUNTY

The following are the officers of the Calhoun County Medical Society for the year 1932: President, Dr. Theodore Kolvoord; vice president, Dr. C. G. Wencke; secretary-treasurer and editor of the Bulletin, Dr. Stanley T. Lowe; delegates to the State Society, Drs. C. S. Gorsline and A. T. Hafford; alternate delegates-at-large, Drs. W. L. Godfrey and A. D. Sharp; councilor, 5th District, Dr. George C. Hafford.

DELTA COUNTY

At the annual meeting of the Delta County Medical Society, held at the St. Francis Hospital, Escanaba, December 15, 1931, the following officers were elected:

President, Dr. L. P. Groos, Escanaba; vice president, Dr. J. J. Walch, Escanaba; secretary-treasurer, Dr. A. J. Carlton, Escanaba; trustee, Dr. G. C. Bartley, Escanaba; medico-legal advisor, Dr. A. S. Kitchen, Escanaba; delegate to the State Society, Dr. John Towey, Powers; alternate, Dr. A. H. Miller, Gladstone.

Following the business meeting a dinner was served by the Sisters of St. Francis.

A. J. CARLTON, *Secretary*.

DICKINSON-IRON COUNTIES

At the recent election of officers of the Dickinson-Iron Counties Medical Society, Dr. E. M. Libby, Iron River, Michigan, was elected president, and Dr. C. P. Drury, Iron Mountain, Michigan, secretary and treasurer.

GRATIOT-ISABELLA-CLARE COUNTY

The December meeting of the Gratiot-Isabella-Clare County Medical Society was held in the

Wright Hotel, Alma, Thursday, December 10. Seventeen members and two visitors had dinner together, and three members came in after dinner.

After dinner was over President Harrigan called the meeting to order. Minutes of the previous meeting were read and approved. The Secretary read his report, which showed we held ten meetings for the year with an average attendance of fifteen members. Three of these meetings were addressed by our own members and seven were addressed by outside physicians. For 1931 twenty-six paid their dues of \$3.00 each, or \$78.00. Expenses for the year were as follows:

Pershing Memorial	\$ 5.00
Flowers to Doctor Bronstetter.....	3.00
Letter Heads.....	3.75
Postage.....	6.30
Telephone.....	2.00
Invited guests expenses.....	19.65
Stenographer.....	10.00
Secretary.....	25.00
	<hr/>
	\$74.70

Balance on hand..... \$3.30

At this time President Harrigan called on Chairman Baskerville for report of the nominating committee for officers for 1932, which were as follows:

For President, C. E. Burt, Ithaca.

For Vice President, T. J. Carney, Alma.

For Secretary-Treasurer, E. M. Highfield, Alma.

Motion was made and carried that the report be accepted and the above officers be declared elected for 1932.

Dr. DuBois moved the Secretary write Mrs. Brainerd thanking her for donating Dr. Brainerd's library to the Medical Society. Motion carried.

Dr. R. B. Smith then presented a patient with mitral stenosis and a musical murmur, to which all the members listened.

President Harrigan then introduced Dr. W. B. Cooksey from Detroit, who gave an instructive and illustrated talk on coronary thrombosis. Some of the points made by Dr. Cooksey were as follows: Coronary thrombosis is not mentioned in medical writings until Osler and Dock mentioned it in their writings. It is not commonly seen in a free clinic, or among working people; more common in private practice or among the white-collar class. Cabot, in a report on 4,000 autopsies, found 77 per cent of the heart deaths were of the non-valvular type. A New York physician studied the hospital deaths in New York for one year and 60 per cent of the heart deaths were of the non-valvular type. Pain of coronary thrombosis is not the same as the heart pain of hypertension. Coronary thrombosis is an acute cardiac episode or catastrophe; 50 per cent of cases occur in the hypertensive group. It is due to an arteriosclerosis of the coronary vessels. There appears to be a familial tendency. There is always an atheromatous plaque at the sight of the obstruction. The most common location of the thrombosis is in the left descending coronary. There may be occlusions of smaller vessels. It occurs most frequently between the ages 45 to 60.

The typical symptoms: Severe precordial pain, shock, fear of death, ashen color, rapid feeble pulse, vomiting, muffled heart sounds, fall of blood pressure, basal râles, and leukocytosis and fever after a few hours and pericardial friction sounds.

Atypical symptoms: Very slight or no pain, unusual location of pain, sudden onset of heart failure, pulmonary edema (which is due to the right heart pumping more blood into the lungs than the left can take away), embolic phenomena, coma and anuria, marked arrhythmia, slow full pulse and heart block.

Treatment: Morphine until pain is relieved, complete bed rest and nothing to eat first twenty-four hours, later may give some form of sugar or glu-

cose intravenous, caffeine sodium benzoate, possibly a vasodilator such as metaphillin, administration of oxygen. Possibly abdominal distension may need attention, such as a mild laxative, rectal tube or hot stupes.

After talking over an hour Doctor Cooksey very kindly answered many questions. He said the question of digitalis was in dispute. He thought best not to give digitalis after the third day.

On behalf of the Society, President Harrigan thanked Doctor Cooksey for his very interesting and instructive talk.

Meeting adjourned.

E. M. HIGHFIELD, M.D., Secretary.

HOUGHTON COUNTY

The annual meeting and banquet of the Houghton County Medical Society was held Tuesday evening, at the Miscowauk Club, Calumet, Mich., at 8:30 o'clock. Social session was held at 6:15 P. M.; the banquet at 7:15 P. M., twenty-one members attending; the business session at 8:30 P. M., twenty-four members attending.

The following officers were elected for 1932: President, Dr. W. T. King, Ameek; vice president, Dr. Geo. McL. Waldie, Hancock; secretary-treasurer, Dr. T. P. Wickliffe, Lake Linden; delegate to State Meeting, Dr. W. A. Manthei, Lake Linden; alternate delegate, Dr. Alfred Labine, Houghton; censors, Drs. A. D. Aldrich, Houghton, I. D. Stern, Houghton, and J. R. Kirton, Calumet.

Following a thorough discussion of the activities of different agents and organizations which have been active during the past year in the interest of the public health of our communities, the following resolutions were unanimously adopted:

Whereas, there has been held in Houghton County, free remedial surgical clinic for correction of defect, without consultation with the medical profession as an organized unit:

Whereas, certain agents are at present operating in Houghton, Keweenaw, and Baraga Counties, in the interest of public health, and the health of citizens of limited means:

Whereas, these above agents are operating without the full coöperation of the organized medical profession of the counties:

Whereas, the activities of these agents in extending free medical aid to citizens of limited means will undoubtedly sooner or later be abused by certain types of citizens, and the agents will be in active competition with the physicians of the counties:

Whereas, the members of the Houghton County Medical Society of Houghton, Keweenaw, and Baraga Counties, feel capable of taking care of their friends, neighbors and fellow citizens, in good times as well as bad times (as the past activities of the medical profession are *mute evidence* of this fact):

Whereas, the medical profession always welcomes the aid and help of any agent or organization which proposes to help better the health of our community, and assures them our full coöperation:

Therefore, Be it Resolved by the Houghton County Medical Society that any agent or organization operating in Houghton, Keweenaw, or Baraga Counties in the interest of the public health of our citizens, and expecting the coöperation of our profession, *must* have their relation to the physicians of these counties established through the regular organized representative of our profession, namely—the Houghton County Medical Society:

Be it further Resolved that the President of the Houghton County Medical Society appoint appropriate committees to represent the Houghton County Medical Society in its relation with the public:

Be it further Resolved, that no member of the

Houghton County Medical Society will associate himself with any agent or organization sponsoring free clinics, *except* through the Houghton County Medical Society:

Be it further Resolved, that due to the present unusual depression and unemployed situation, and the rapidly increasing amount of free services demanded of the medical profession, the president of the Houghton County Medical Society shall appoint proper committees to enter into negotiation with the Supervisors of Houghton, Keweenaw, and Barraga Counties, with the purpose of taking care of this work through the Houghton County Medical Society:

Be it further Resolved, that any fees accruing from this indigent work for counties be paid directly to the Houghton County Medical Society, the final dispositions of the funds left to the action of the Medical Society.

Be it further Resolved, in order that we have unanimous support, and united action by every member of Houghton County Medical Society, that any member of Houghton County Medical Society, who knowingly violates the above resolutions, shall be cited to the Board of Censors, and if found guilty, his offense shall be deemed sufficient cause for his expulsion from the Houghton County Medical Society.

Moved, passed and adopted this fifth day of January, 1932, Calumet, Michigan.

T. P. WICKLIFFE, *Secretary*.

JACKSON COUNTY

The members of the Jackson County Medical Society met at the W. A. Foote Memorial Hospital on the afternoon of December 15 for their regular monthly business meeting.

The minutes of the previous meeting were approved as printed in the Bulletin.

Dr. Clarke, chairman of the Health Education Committee, talked on the subject of toxin-antitoxin administration. He stressed the importance of the individual physician in this work. There has been no toxin-antitoxin administered in the schools since last June and it is now necessary for each physician to take an active part in this work and urge the parents with whom he comes into contact to have their children immunized early in life. Dr. Dengler suggested that the Society might have cards printed which could be hung up in the doctors' waiting rooms calling attention to the need of early immunization. After some discussion he made this as a motion, which was seconded by Dr. Faust. The motion carried. Dr. Van Schoick moved that the Health Department of Jackson be asked to cooperate with the Medical Society by sending notes to the families having children not immunized and to check up on those not responding after a reasonable time to learn why they had not been done, and that if it was due to lack of means then the family physician should do it free. Dr. Ludwick seconded the motion. In the discussion which followed Dr. Bullen, the city school physician, said that because of the reduction of the amount of help in the Health Department he did not know whether this could be done, but stated they were willing to cooperate. Motion carried.

Dr. Smith reported that the agreement between the County Board of Supervisors and the Jackson County Medical Society for the care of the county indigent patients was working out as satisfactorily as could be expected. He pointed out that at the outset there was likely to be some misunderstanding in regard to the bills. He urged the physicians to consult the fee schedule carefully in itemizing their

statements. At the present time funds are not available for their payment, but it was expected that they would be taken care of early in January.

The members were urged by Dr. Riley to send in a bill of two dollars to insurance companies when filling out sick and accident reports.

The Society then proceeded to the election of officers for the coming year. Dr. M. N. Stewart was elected president. Dr. Stewart stated that he appreciated the honor bestowed upon him but because of ill health he felt that he could not perform the duties of president and asked that the Society accept his resignation. Dr. Van Schoick moved that his resignation be accepted. Motion carried. Dr. C. E. DeMay was then elected President; Dr. W. L. Finton, Vice-President; Dr. R. H. Alter, Secretary; Dr. F. G. Ransom, Treasurer. The directors elected were Dr. Charles Dangler, Dr. H. A. Brown and Dr. Ferdinand Cox; delegates, Dr. Philip Riley and Dr. J. J. O'Meara; alternate delegates, Dr. C. S. Clark and Dr. H. A. Brown.

After the election of officers the members adjourned to the Hayes Hotel, where a turkey dinner was enjoyed by the members and their wives. They were then addressed by Mr. Harold Steele, superintendent of Jackson public schools, on the "Modern Trend of Education." The new officers were then installed and the remainder of the evening was spent in the ballroom.

KALAMAZOO ACADEMY OF MEDICINE

The annual meeting of the Academy was called to order at 1:30 on December 15, 1931, in the Academy rooms, by the president, Dr. Sherman Gregg.

A vote by ballot for president was the first order of business. Drs. Boys and Cook moved that if a majority was not voted on the first ballot, a second vote should be taken on the three highest. Carried. Drs. Shackleton and A. H. Rockwell moved that a unanimous vote be recorded for Dr. Morter as president of the Academy for the ensuing year. Carried.

Drs. Fulkerson and S. E. Andrews were appointed as further members to act temporarily on the Board of Censors for applications for membership.

Inaugural remarks of appreciation were made by Dr. Morter, who then accepted the chair.

The minutes of the previous meeting as printed in the Bulletin were approved.

Correspondence was read.

The report of the nominating committee follows:

The Nominating committee of the Kalamazoo Academy of Medicine respectfully submit the following names for officers of the Society during the ensuing year:

President, R. A. Morter; first vice-president, W. R. Vaughn; second vice president, A. A. McNabb; third vice president, L. W. Gerstner; treasurer, Hugo Aach; librarian, Clara Unrath; board of censors, Sherman Gregg and L. H. Stewart; delegates to State Society, F. T. Andrews and A. A. McNabb; alternates to State Society, D. C. Rockwell and J. T. Itzen.

Signed,

C. B. Fulkerson

L. H. Stewart

W. E. Shackleton.

Drs. Shackleton and Fulkerson moved that the report be accepted and unanimous ballot be cast for the officers named. Carried.

Dr. McNair, believing that the Academy should honor its older members, moved that a letter be sent as a gesture of kindness to Dr. Orlo B. Ranney,

now eighty-four years old and the oldest living charter member of the Academy, notifying him of his election as an honorary member of the Academy with all its privileges. Seconded by Dr. Shackleton. Carried.

Dr. Collins, reporting for the membership committee, stated that there were 118 members at the beginning of the year 1931. Three members died and two moved away during the year. As of January 1 there are 123 active members and one honorary member.

Dr. R. G. Cook read a portion of the State Criminal Code relating to reporting of deaths to the coroner. Discussion by Drs. Boys and Crum. Drs. F. T. Andrews and S. E. Andrews moved that the report be printed in the bulletin. Carried. The report follows:

"Sec. 19. It shall be the duty of any physician and of any person in charge of any hospital or institution, or of any person who shall have first knowledge of the death of any person who shall have died suddenly, accidentally, violently or as the result of any suspicious circumstances or without medical assistance up to and including at least thirty-six hours prior to the hour of death, or in any case of death due to what is commonly known as an abortion, whether self-inflicted or otherwise, to immediately notify the coroner of the death. It shall be unlawful for any undertaker, embalmer or other person to remove the body from the place such death occurred, or to prepare same for burial or shipment, without first notifying the coroner and receiving permission to remove the body."

Dr. Sherman Gregg gave his exaugural address on "Recent Developments in the Diagnosis and Treatment of Poliomyelitis."

MARQUETTE-ALGER COUNTY

The annual meeting of the Marquette-Alger County Medical Society was held in Marquette, January 12, 1932.

The following officers were elected for the ensuing year:

President, Dr. N. J. Robbins, Negaunee; vice president, Dr. T. R. Laughbaum, Marquette; secretary-treasurer, Dr. D. P. Hornbogen, Marquette; delegate to Michigan State Society meeting, Dr. V. H. Vandeventer, Ishpeming; alternate delegate, Dr. L. W. Howe, Marquette.

Following the election of officers Dr. R. Grant Janes presented a very interesting and instructive paper on "Pituitary Hormones and their Relation to the Ovaries."

D. P. HORNBOGEN, *Secretary*.

NORTHERN MICHIGAN

The December meeting of the Northern Michigan Medical Society was held at the Perry Hotel, Petoskey, December 10, 1931, with a 100 per cent membership attendance plus several guests.

Following an excellent turkey dinner, the formal business of the society was done away with for the evening and the program arranged for immediately taken up.

The first speaker was Mr. Moore of the General Electric Company, who showed a number of slides depicting the various discoveries made by routine X-rays. He urged the more general use of X-ray in routine examination.

The next speaker was Dr. John Hodgen of Grand Rapids, who gave an extremely practical talk on the treatment of Colles' fractures.

Dr. Hodgen's talk was followed by a series of X-ray films shown by Dr. Menees. These films il-

lustrated the various types of fractures and were commented on by Dr. Hodgen.

Following the talks a general discussion was held by the members and the visiting men.

The January meeting of the Northern Michigan Medical Society was held January 14, 1932, at the Perry Hotel, Petoskey. Eighteen members attended this first meeting of the new year and a very successful meeting was held. The entire meeting was devoted to business.

The applications of Drs. Harrington, Harbor Springs; Conway, Petoskey; and Witters, Charlevoix, were read. On motion it was voted to suspend the rules and grant these men membership.

A membership committee was appointed consisting of Drs. Mast, Frank and Mayne.

A motion was made and carried that the delegate to the state meeting be paid travelling expenses by our local society.

A report on the January Council meeting was given by Dr. Van Leuven.

A Program Committee consisting of Drs. Frank, Van Leuven and Brenner was appointed to arrange the program for the February meeting.

A vote of thanks was given Drs. Mast and Duffie for their splendid work as president and secretary for the past year.

Dr. Mayne of Cheboygan was appointed a committee of one to act as Medico-legal Advisor.

Dr. Staley of Rogers City (Couzens Fund) then made a short talk. The meeting was presided over by the new president, Dr. William Stringham of Cheboygan.

ERVIN J. BRENNER, *Secretary*.

OAKLAND COUNTY

The election of Dr. Chas. A. Neafie, Director of Public Health, City of Pontiac, has brought into the executive chair the member best informed in events of the society. This election so makes the Councillor from this district the county president. In addition, the new incumbent unofficially serves the society as its historian.

After a residence in Oakland County of three years, Dr. Neafie joined the society in the December, 1915, meeting in a class with Drs. Foley, Knapp and Mercer. He was first inducted into office in 1919, when he served one year as secretary-treasurer. At the expiration of his term from his suggestion this position was divided into two offices.

From 1927 continuously until 1930, Dr. Neafie occupied the secretaryship. It was during this period that the society's bulletin, which had appeared in 1912 under Dr. Jos. B. Chapman for a few issues, was republished as a mimeograph folder. After two years it was brought to its present pamphlet, printed form, self sustaining from advertising. In 1931 he was elected to serve as councillor, 15th District, in the Michigan State Medical Society, for a term of four years.

Besides association in the American Medical affiliates, Dr. Neafie is a member of the several public health societies culminating in the International Association of Medical Health Officers, two of which he has served as president. As a vocation he is gathering from all available records and from interviews with oldest residents historical material by decades of the approximately 1,000 medical men who have practiced in the county since its first settlement in 1817.

One of Dr. Neafie's noteworthy contributions to the society was a series of historical sketches of these pioneer medical men appearing in the local press several months ago. These notes not only engendered much interest and public good will, but

number among the few articles so appearing to acquaint the thousands of Oakland's newcomers with the flux of romance of the county's early days, so necessary for welding a heterogeneous citizenry into a community.

Most significant to Dr. Neafie of the changes occurring in the society has been the increase in cordial relations between members. So discordant was the society in the nineties that for a period of ten years no president was elected, neither faction being willing for such honor to be placed elsewhere. In the sixteen years of Dr. Neafie's experiences this feeling gradually has given place to one of harmony and united purpose. Paralleling this has been an increase in scientific interest. Scientific meetings have increased from two to ten yearly, in addition to three or four social seasons. Numerically during this period the society has more than trebled.

The practitioner of the future, Dr. Neafie believes, will find increasing emphasis resting upon preventive medicine in the broadest sense. Before the society's immediate attention is the matter of medical care during the current unfortunate period for the truly indigent, which Dr. Neafie shows the society has never failed fittingly to meet. With interest is awaited by the Council of the State Society the report of the special committee to investigate activities of agencies administering to the public health, inaugurated at the last state meeting.

A meeting of the Board of Directors was held December 11, 1931, 12:15 P. M., at the Heldenbrand Hotel.

Present were Farnham, Gerls, Murtha, Mercer, R. Baker, Hoyt, Monroe.

Motion made, seconded, carried that Hoyt and R. Baker be appointed to audit the accounts of the Treasurer, as is the law of the Society, before the next annual meeting.

The Secretary was instructed to send to the Secretary of the State Society a copy of Clarence Smith's letter written to Dr. Corbit. This letter relates to the questions of chiropractors and osteopaths practicing preventive medicine.

Dr. R. Baker moved that Dr. Carr's application for membership be announced in the Bulletin for January, and to be considered by the Society at the January meeting.

Dr. Gerls moved that we suggest to the Poor Commission that they communicate with the various factories in Pontiac and carry to them the following idea: That when men are invited to return to work, this be done, not by letter, but by personal interview. This is suggested because of a number of cases in which families have gone back to their former homes, awaiting summons by the factory to return to work. The summons comes by mail in many cases addressed to the residence of a friend, who in turn forwards notice to the worker, who has temporarily gone back to his home state with his family. If the interview should be personal, these men would not be called back to Oakland County, but other unemployed men, already here, would be put to work. Seconded by Dr. Neafie. Carried.

Dr. Wagley moved that Neafie, R. Baker, and Hoyt be appointed to meet with H. M. Pryale in regard to the care and collection of fees when Wayne County cases are cared for. Seconded by Dr. Gerls. Carried.

The Secretary was instructed to send F. T. Reid a list of Oakland County members in his vicinity and have them each write a letter to the Secretary expressing their views of the application of Dr. Carr for membership in our Society.

Dr. Neafie moved that Warnshuis' letter relating to osteopathy be turned over to Dr. Furlong, Chair-

man of the Medico-legal Committee. Seconded by Dr. Gerls. Carried.

Dr. Wagley moved that the Secretary furnish uniform minute books to the Chairman of each Standing Committee. Seconded by Dr. Neafie. Carried.

Dr. Neafie moved that Dr. Mooney be notified that he is on the suspended list. Seconded by Dr. Wagley. Carried.

Dr. Wagley was instructed to communicate with Dr. Sheffield, Chairman of the Program Committee, in regard to a combined meeting with the Pontiac State Hospital, to celebrate the 50th anniversary of Dr. Christian's connection with the Pontiac State Hospital.

Dr. Wagley moved that we recommend to the Society that Dr. Shaw of Birmingham be made an honor member of the Society, and that his past dues be cancelled. Seconded by Dr. Gerls. Carried.

Dr. Wagley moved that the question of the status of Drs. Alexander and Lossee be referred to the Membership Committee, Dr. Mitchell, Chairman. Seconded by Dr. Gerls. Carried.

Dr. Hoyt moved that the Treasurer be instructed to obtain a statement of intention from the remaining delinquent members. Seconded by Dr. Gerls. Carried.

ONTONAGON COUNTY

At the annual meeting of the Ontonagon County Medical Society, held at this place January 4, the following officers were elected for the ensuing year:

President, C. F. Whiteshield, Trout Creek; Vice President, H. P. Blake, Bergland; Secretary, E. J. Evans, Ontonagon.

E. J. EVANS, *Secretary*.

SAGINAW COUNTY

The election of officers for 1932 at a meeting of the Saginaw County Medical Society, held December 15, 1931, resulted as follows: Rockwell M. Kempton, M.D., president; Frederick J. Cady, M.D., vice president; W. K. Anderson, M.B., secretary-treasurer; William J. O'Reilly, M.D., medico-legal advisor.

The Board of Censors is composed of the following: H. J. Meyer, M.D.; P. S. Windham, M.D.; E. E. Curtis, M.D.

W. K. ANDERSON, *Secretary*.

SAINT CLAIR COUNTY

The annual meeting of Saint Clair County Medical Society was held at Port Huron, Michigan, on Tuesday, December 15, 1931.

Twenty-eight members and four guests were present. After a very enjoyable dinner and social hour the meeting was called to order by President J. E. Wellman. The business of the evening was the election of officers for the year 1932.

The following officers were elected: President, Dr. D. W. Patterson; vice president, D. J. F. Waltz of Capac; secretary-treasurer, Dr. George M. Kesl; delegate to the State Society, Dr. A. L. Callery; alternate delegate to the State Society, Dr. T. E. De Gurse of Marine City.

Adjourned without further business after a short address by the newly elected President, Dr. D. W. Patterson.

A regular meeting of Saint Clair County Medical Society was held at Port Huron, Michigan, on Tuesday, January 5, 1932.

Eighteen members were present. After a most enjoyable dinner and social hour the meeting was called to order by President D. W. Patterson who

introduced the speaker of the evening, Dr. Alex. J. MacKenzie of Port Huron, Michigan. Dr. MacKenzie gave a most interesting talk on his personal observations in diagnosis and treatment of diseases of the prostate gland. Those present found the subject as presented by Dr. MacKenzie very interesting and full of practical points. The speaker stressed the two-step operative treatment, pointing out the importance of a thorough decompression of the bladder followed by an interval of time sufficiently long to allow the patient to return to normal before attempting the second part of the operative treatment. Dr. MacKenzie stated that if this plan was followed and the patient allowed to come back to normal before the removal of the gland that the mortality was very low, at least it had become so in his own experience. In conclusion Dr. MacKenzie demonstrated a feature in the treatment of a simple fracture of the lower jaw by the use of a wire splint which avoided fixation of the lower to the upper jaw and increased the comfort of the patient during the period of treatment. Both subjects brought forth friendly discussion by many of the members present, after which the speaker of the evening closed the program in the usual manner.

Before adjournment the following resolutions were adopted without debate:

Resolved that the local dues of the society be reduced from six dollars to four dollars a year.

Resolved that the society pay the expenses of our delegate to the meeting soon to be held at Jackson provided same are not otherwise paid.

Resolved that the report of the auditing committee covering the records of the society for the year of 1931 be accepted and placed on file.

—GEORGE M. KESL,
Secretary-Treasurer.

WOMAN'S AUXILIARY, MICHIGAN STATE MEDICAL SOCIETY

MRS. J. EARL MCINTYRE, President, Lansing
MRS. W. E. McNAMARA, Secretary, Lansing

A MESSAGE FROM THE NATIONAL PRESIDENT

Dear Auxiliary Members:

As we cross the threshold of a new year shall we, like other businesses, pause and take stock of ourselves to see where we have arrived in relation to the goal which we set for ourselves at our annual meetings?

Is there yet a county or a state auxiliary that is not working under the direction of an advisory council or counselor of doctors appointed by its medical society? A questionnaire sent last summer to our thirty-seven constituent state units to ascertain if they had advisory councils appointed by their medical associations brought replies from thirty and revealed that twenty-eight of those did have an advisory council. One of our goals for this year is an advisory council or counselor for each of our county and state auxiliaries. Where does your own auxiliary stand with relation to this goal? It is hoped that each state president reporting at New Orleans will be able to say that not only her state auxiliary but that each of its constituent county units has an advisory council or counselor.

Have you as a county or state group set a goal for membership? Has your auxiliary some sort of membership file by which you have kept a complete record of members from the beginning of your organization and are you retaining as members all

those who have ever belonged? If not, could you not begin this first month in the new year to re-enlist them? Our national files contain many cards of members which we have had to class as "delinquents" because we have failed to receive dues for them or reports on them. Some of these have moved to other states, others have passed into the Great Beyond, still others have just failed to pay dues. Could not each organized county that has not already done so, yet this year make an effort to re-enlist very eligible woman who has ever been a member, make a card file of its membership and report to the state office the names of those who have moved to another locality and to a chairman, which each state president is being asked to appoint for that purpose, the names of those who have passed on.

It seems to me that each county administration should feel that it had failed somehow in its duty if it did not make a sincere, persistent and tactful effort to hold in membership at least all those committed into its care by the former administration and unless its membership is already one hundred per cent of the wives of doctors belonging to the county medical society, it should attempt to make a definite, even though slight, gain.

The president of an Auxiliary in one of the sparsely settled western states, where great distances and mountainous country make frequent meetings impossible, wrote that she had received much inspirational material from the various national chairmen this year, but that, as yet, her Auxiliary is only a social organization, whose primary purpose is to stimulate its members to attend annual meetings so that the attendance of the doctors themselves may be increased. This is a laudable goal. This Auxiliary is already a "reserve force" for its medical society. When the doctors in that state medical society find out how those in the neighboring state societies are using their Auxiliaries to promote understanding between the medical profession and the public, perhaps they, too, may desire to use their "reserve force" for further service, and the Auxiliary in the meantime may be reviewing the work of other Auxiliaries as reported in the state Journals, the Bulletin, the Minutes and Reports of the Convention, and preparing itself for service when called upon.

Some of the newly-organized Auxiliaries are attempting nothing more than to bring about unity and solidarity within the profession by means of social contacts between the families of doctors. My observations on my visits to Auxiliaries during this year leads me to believe that this function of the Auxiliary should not be underestimated. The medical societies are apparently, more and more, recognizing the forces both within and without the profession that are working counter to the best interests of the profession and the public and are feeling the need of a *unifying* force such as an Auxiliary may be when given sufficient encouragement and co-operation, and guidance by its medical society.

Recently an outstanding doctor in a county society which has no Auxiliary, objected to the organization of one because he said the Auxiliary is merely duplicating the work of other women's organizations. He gave as an example the various types of philanthropic work done by our units. This doctor had lost sight of two important factors in connection with the philanthropic projects of most of the Auxiliaries. First, the philanthropic work done by the Auxiliary usually is related closely to the work of the medical professions, for example: participation in Christmas seal sales of the tuberculosis societies; various types of work for hospitals, sanatoriums and preventorium; scholarship loan funds for medical students and students of nursing; contributions to

the Medical Benevolence Fund by the Pennsylvania Auxiliary; contributions to memorials established or approved by medical societies. Because of the humanitarian and almost universal appeal to women of philanthropic work it will serve as a bond to hold them together while they establish unity and good fellowship within their group and while some to whom the educational and legislative programs make a strong appeal work under the guidance of their advisors on these programs within their own and other women's groups. Has your Auxiliary a philanthropic goal for this year? Might it increase interest if you had such a goal?

The growing interest in the educational and public relations programs of the Auxiliaries this year has been most gratifying. That many state medical societies have prepared educational programs for their Auxiliaries and have endorsed the National Auxiliary study envelops for use in developing these programs is satisfying. In an increasing number of county Auxiliaries a few women are being discovered who are vitally interested in the educational programs and who are a real force in interpreting the ideals and work of the medical profession to other women's groups in which they work by influencing these groups in the choice of approved literature and speakers to be used on their health programs. One of our goals this year is to discover such women, to urge them to represent our groups in other women's organizations by accepting positions of leadership therein, and to back them up by our loyal support. Are there such women in your group working, or capable of working, under supervision of your advisory council in other women's organizations?

The state Auxiliaries have made much progress this year in securing chairmen corresponding to the national chairmen. Our organizations cannot function properly until county Auxiliaries also have such chairmen who will receive program suggestions and materials from the state chairmen and who will report to the state chairmen on the progress of the county work. The function of the National Auxiliary is to stimulate interest in types of approved work possible to be done and to serve as a clearing house for information on the kinds of work being done successfully by the various Auxiliaries. It is obvious that little interest can be stimulated if there are not county and state chairmen corresponding to the national. How near to this goal is your Auxiliary?

During the year between annual meetings our Press and Publicity Committee reporting to the state Journals and through the Bulletin of the A. M. A. is our clearing house for information and news. Has your state contributed its share of news to the state and national chairmen? Our national Press and Publicity Chairman has been very diligent in collecting news and prompt in reporting, but many of our state chairmen have never reported to her. My dear state presidents, are you positive that *your* chairman is reporting? Isn't one of your goals to let the rest of the Auxiliary world know what fine work your state is doing so that others may profit by your example? If your Press and Publicity chairman is not functioning, will not you consider it your privilege as well as duty to send a report of your work to Mrs. Overholser immediately! Is she receiving the Journal of your state medical society? Is Mrs. Walter J. Freeman, the editor of the Bulletin, receiving it?

A most interesting and inspiring development in Auxiliary work that was revealed by some of the states reporting at the mid-year board meeting in Chicago is that several of the state Auxiliaries now have a portion of the time of an assistant-executive

secretary appointed by their respective medical societies. Minnesota, Illinois and Wisconsin reported such coöperation. Is that kind of relationship between a State Medical Association and its Auxiliary not a goal for which to hope?

The National Auxiliary does not presume to dictate, it desires only to collect and exchange plans to advise and to stimulate state presidents and their chairmen. The annual conventions and mid-year board meetings are our greatest factors in stimulating interest. It is in these meetings that the values of the Auxiliary become apparent; it is here where, by reports, by conferences and discussions, we measure our progress, evaluate our methods and discover our mistakes; it is here that we discover our strength and our weakness, it is here that we set our goals.

We believe that the national mid-year board meetings and conventions are so important in the life of the Auxiliary that every board member should consider it an obligation when reasonably feasible to attend. We are suggesting that each state Auxiliary set this new goal for itself at its next annual meeting if possible, that it provide sufficient means to insure its state president's attendance at the mid-year board meeting in Chicago, and at the annual Convention in the spring. We believe that every state chairman should make an honest effort to attend the national convention.

Mrs. Joseph Hume of New Orleans is the chairman of the next convention which is to be held next May 9-13 in that interesting old city of the South, New Orleans. Our own President-Elect, Mrs. Walter Jackson Freeman, who so skillfully guided the Convention in Philadelphia, is also a member of the New Orleans Convention Committee.

There we shall find both pleasure and inspiration. May I hope to meet you there, one and all? May we have the satisfaction of reporting that we have reached all goals set for the current year? There are yet three more working months in which to accomplish them.

And won't you all be considering the goals we should set for next year?

Faithfully yours,

(MRS. ARTHUR B.) ANNA F. MCGLOTHLIN
President, Woman's Auxiliary,
American Medical Association.

MICHIGAN STATE MEDICAL SOCIETY AUXILIARY

The Executive Board of the Woman's Auxiliary to the Michigan State Medical Society met in Detroit at the Woman's City Club, Tuesday, January 12, 1932, at noon. The subject of dues to be paid by the county auxiliaries to the State was discussed thoroughly and as an emergency measure the Board voted to decrease the dues to fifty cents per member for the current year. It is felt that this will help the county auxiliaries to carry on their welfare work which is so imperative at this time.

Those attending were Mrs. J. Earl McIntyre, president; Mrs. F. A. Mercer, vice president; Mrs. W. E. McNamara, secretary-treasurer; Mrs. Herbert Hertsch, Hygeia chairman, and Mrs. Guy L. Kiefer, state organizer.

WAYNE COUNTY AUXILIARY

The regular monthly meeting was held in the Nurses Home of the Highland Park General Hospital on Tuesday, January 12, at 2 P. M. Mr. Thaddeus Wronski, manager of the Detroit Civic Opera, was the speaker. Mrs. Earl McIntyre, president of the Woman's Auxiliary to the Michigan State Medical Society, Mrs. Guy L. Kiefer, state organizer,

and Mrs. W. E. McNamara, secretary, all of Lansing, Michigan, were guests of honor.

Following the meeting those assembled were guests of the Highland Park Physicians Club at tea. Dr. E. E. Poos, president, gave an address of welcome, and wives of the members officiated as hostesses. About 75 members and friends enjoyed the hospitality of the club.

Mrs. Elmer L. Witney, of Detroit, past president of the Auxiliary, has been appointed sectional chairman of the Public Relations Committee in the Northwest and Central regions, of the Woman's Auxiliary to the American Medical Association. Mrs. Witney served on the National Board as chairman of the Legislative Committee last year.

THE DOCTOR'S LIBRARY

THE SURGICAL CLINICS OF NORTH AMERICA.

(Issued serially, one number every other month.) Volume 11, No. 6 (Philadelphia Number—December, 1931.) 309 pages with 87 illustrations. Per Clinic Year (February, 1931, to December, 1931.) Paper, \$12.00; cloth, \$16.00 net. Philadelphia and London, W. B. Saunders Company, 1931.

CONQUERING ARTHRITIS. By H. M. Margolis, M.D., New York, The Macmillan Company, 1931.

This is a work written for the arthritic patient. It is not, however, a guide for self-treatment. It rather discusses the problems which beset him. It deals with the history of the disease, outlines the general problem of the rheumatic patient and describes the various forms of chronic arthritis. Other subjects dealt with are Sources of Infection; The Structure of Bones and Joints; The Life Cycle and Course of Infectious Arthritis; Arthritis Confined to the Spine; and Rheumatic Fever. It is a book which will be found helpful to the general reader.

HISTORY OF MEDICINE IN THE UNITED STATES.

By Francis R. Packard, M.D., Editor of the *Annals of Medical History*. 103 illustrations; 2 vols., pages, 1,323. Paul B. Hoeber, Inc., New York, 1931. Price, \$12.00.

This splendid work has been long anticipated. Dr. Packard brought out a single volume work on the same subject in 1901. Those of us who have been more or less familiar with the first edition have felt that after three decades the time is more than ripe for a second. However, now that we have it, it cannot be commended too highly. Perhaps there is no other person in the United States better qualified to write such a work than the author. He brings to the task a ripened historical judgment refined by the editorship of what is perhaps the finest Journal in the world devoted to the history of medicine, namely the *Annals of Medical History*.

We would all agree with him that a History of Medicine in the United States is of necessity an account of the development of institutions and a description of the lives of men who have influenced the medical thought and practice of this day.

The work is encyclopedic in its embodiment of American medical history. The history of medicine in this country is intimately associated with the history of the country itself. Among the subjects dealt with are the following: Medical Events Connected with the Early History of the English Colonies in America; Epidemic Sickness and Mortality in the English Colonies in North America from its Earliest Discovery to the year 1800; Early Medical Legislation; The Earliest Hospitals; Medical Education before the Foundation of Medical Schools;

The Earliest Medical Schools; Pre-Revolutionary Medical Publications; The Medical Profession in the War for Independence; The Medical Department of the Army from the Close of the Revolution to the Close of the Spanish-American War; History of the Medical Department of the U. S. Navy; Some of the Medical Schools Founded by the First Half of the Nineteenth Century; Outlines of the Development of Medical Practice and Education in Some of the States; Foreign Influences on American Medicine; Some Notable Events in American Medicine and Surgery; and The Beginnings of Specialism in America.

There is a lengthy but interesting chapter dealing with the outlines of the development of medical practice and education in some of the States. Readers of this Journal will be interested in Dr. Packard's treatment of both medical education and medicine in the State of Michigan.

The author devotes ten pages to this State in which he commends the Medical History of Michigan, gotten out by the Michigan State Medical Society in 1930, which he describes as "a large work" containing "minute details on the history of every phase of the subject."

Every American physician will desire to read this book. No other work of which we have any knowledge gives so complete an account of the evolution of American medicine from colonial times to the opening of the present century. The author is to be congratulated on the publication of this, which may be called his *magnum opus*.

IMHOTEP TO HARVEY. BACKGROUND OF MEDICAL HISTORY. By C. N. B. Camac, M.D., Assistant Professor of Clinical Medicine, College of Physicians and Surgeons, Columbia University, New York. Foreword by Henry Fairfield Osborn, Sc.D., LL.D. Price, \$3.75. Paul B. Hoeber, New York, 1931.

Within recent years, books on medical history, or some phase of the subject, have appeared fairly frequently. Undoubtedly they meet a certain demand, which is a healthy sign. Chairs of medical history have been established in many medical colleges. The subject is one which is not likely to be soon exhausted. The present work dealing with the Backgrounds of Medical History is, in a sense, unique. It is the outgrowth of informal conferences of the author with groups of fourth year medical students. It is an outline, but a very suggestive one, with its tables which enable the reader to obtain a true view of medical history in perspective, and its lists of reference books classified according to the different periods or epochs. These works are designed for the English reader inasmuch as those included from the French or German are limited to works available in English translations. The author's presentation of the subject is of extraordinary interest from his first chapter, in which he discusses the Evolution of Inquiry, to end where he deals with the virile seventeenth century. If the reviewer were to make a choice of these interesting chapters it would be the fourth, in which the author describes the middle ages, which he calls the period of retrogression for science. Seldom have we had this long fallow epoch handled so graphically. Those on the pre-Renaissance and Renaissance periods are particularly fascinating. The author, in his discussion of "backgrounds," makes real and vivid the atmosphere in which the makers of medicine and, indeed, science in general worked often with much discouragement and in the shadow of persecution. After two whole evenings with this book we are tempted to use the superlative degree. The format and art of book-making are in keeping with the other excellent books of this series which it has been a pleasure to commend from time to time.